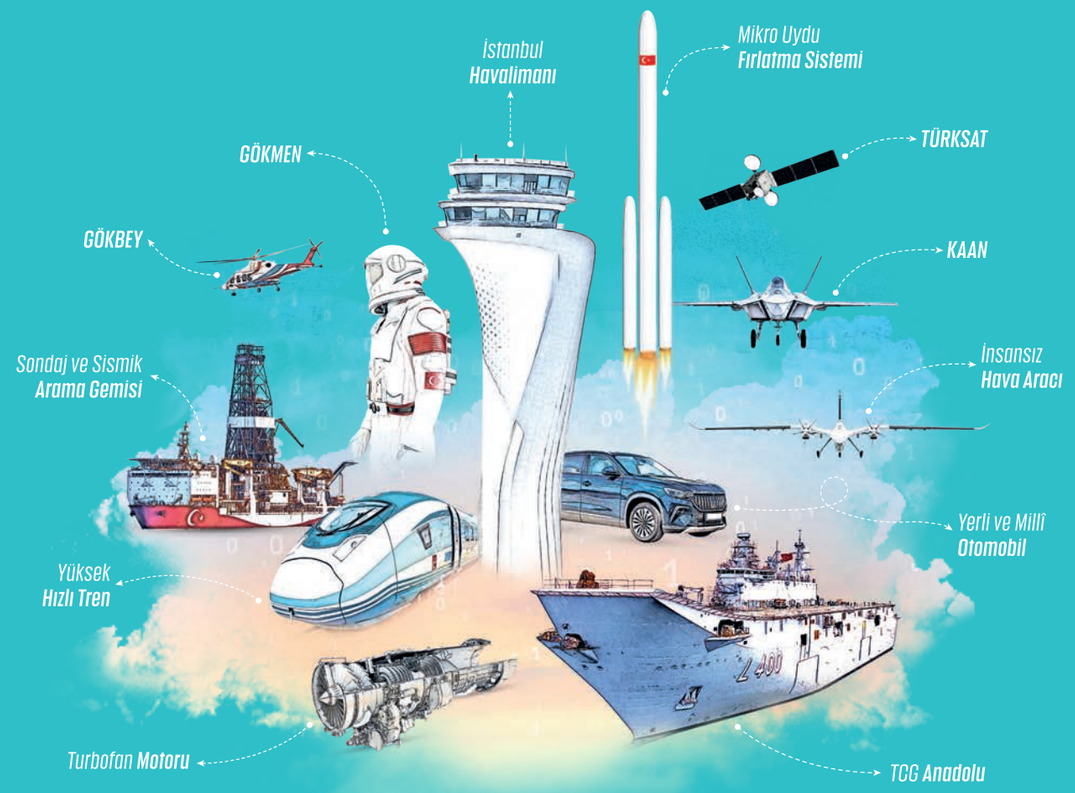
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VOCATIONAL AND TECHNICAL ANATOLIAN HIGH SCHOOL

MARITIME | DECK MANAGEMENT PRACTICES IN FOREIGN LANGUAGE



10 COURSE MATERIAL

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DECK MANAGEMENT PRACTICES IN FOREIGN LANGUAGE

10th GRADERS

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İSTİKLÂL MARŞI

Korkma, sönmez bu şafaklarda yüzen al sancak;
Sönmeden yurdumun üstünde tüten en son ocak.
O benim milletimin yıldızıdır, parlayacak;
O benimdir, o benim milletimindir ancak.

Çatma, kurban olayım, çehreni ey nazlı hilâl!
Kahraman ırkıma bir gül! Ne bu şiddet, bu celâl?
Sana olmaz dökülen kanlarımız sonra helâl.
Hakkıdır Hakk'a tapan milletimin istiklâl.

Ben ezelden beridir hür yaşadım, hür yaşarım.
Hangi çılgın bana zincir vuracakmış? Şaşarım!
Kükremiş sel gibiyim, bendimi çiğner, aşarım.
Yırtarım dağları, enginlere sığmam, taşarım.

Garbın âfâkını sarmışsa çelik zırhlı duvar,
Benim iman dolu göğsüm gibi serhaddim var.
Ulusun, korkma! Nasıl böyle bir imanı boğar,
Medeniyyet dediğin tek dişi kalmış canavar?

Arkadaş, yurduma alçakları uğratma sakın;
Siper et gövdeni, dursun bu hayâsızca akın.
Doğacaktır sana va'dettiği günler Hakk'ın;
Kim bilir, belki yarın, belki yarından da yakın.

Bastığın yerleri toprak diyerek geçme, tanı:
Düşün altındaki binlerce kefensiz yatanı.
Sen şehit oğlusun, incitme, yazıktır, atanı:
Verme, dünyaları alsan da bu cennet vatanı.

Kim bu cennet vatanın uğruna olmaz ki feda?
Şüheda fışkıracak toprağı sıksan, şüheda!
Cânı, cânânı, bütün varımı alsın da Huda,
Etmesin tek vatanımdan beni dünyada cüda.

Ruhumun senden İlâhî, şudur ancak emeli:
Değmesin mabedimin göğsüne nâmahrem eli.
Bu ezanlar -ki şehadetleri dinin temeli-
Ebedî yurdumun üstünde benim inlemeli.

O zaman vecd ile bin secde eder -varsa- taşım,
Her cerîhamdan İlâhî, boşanıp kanlı yaşım,
Fışkırır ruh-ı mücerret gibi yerden na'şım;
O zaman yükselerek arşa değer belki başım.

Dalgalan sen de şafaklar gibi ey şanlı hilâl!
Olsun artık dökülen kanlarımın hepsi helâl.
Ebediyyen sana yok, ırkıma yok izmihlâl;
Hakkıdır hür yaşamış bayrağımın hürriyyet;
Hakkıdır Hakk'a tapan milletimin istiklâl!

Mehmet Âkif Ersoy

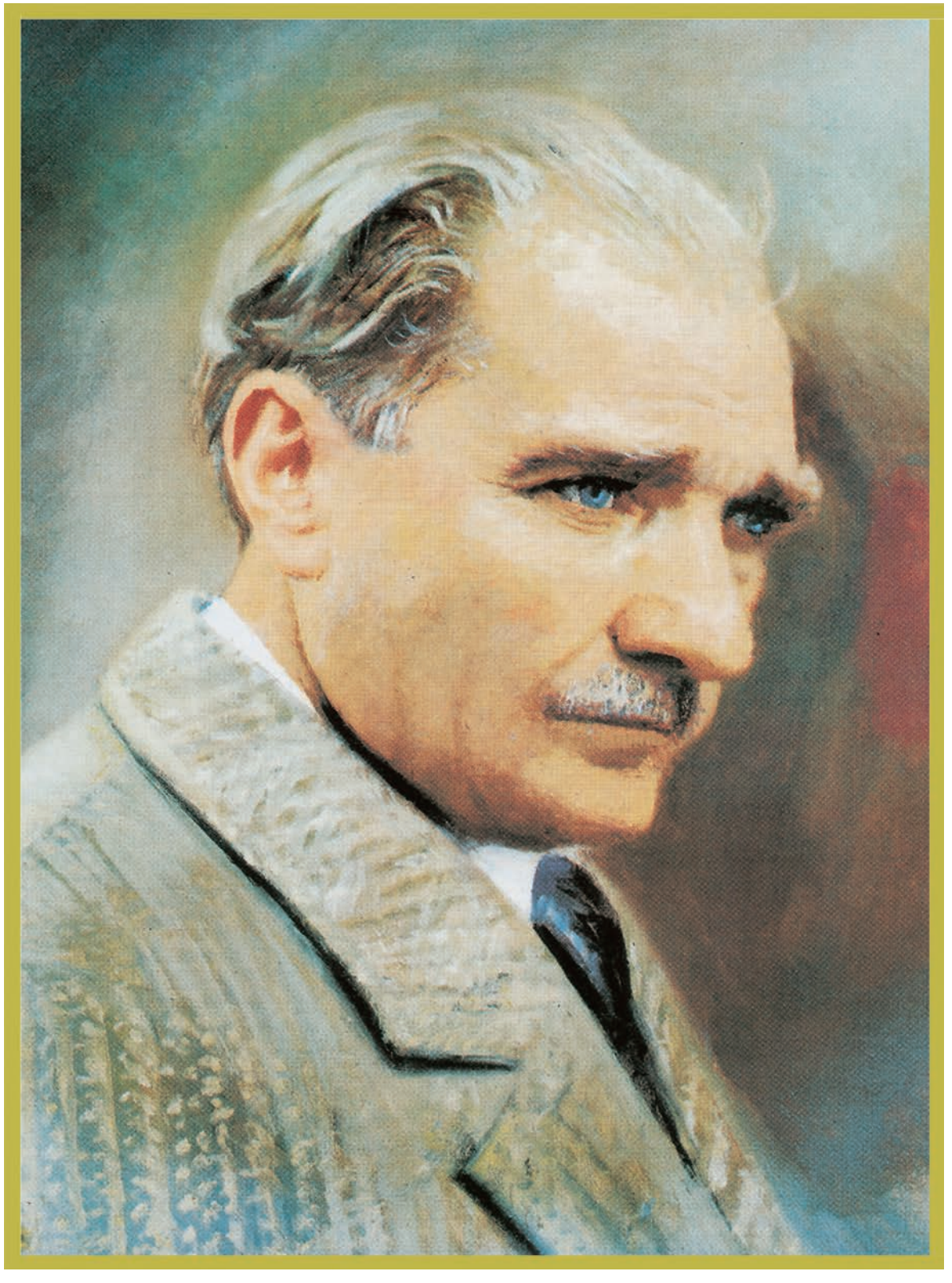
GENÇLİĞE HİTABE

Ey Türk gençliği! Birinci vazifen, Türk istiklâlini, Türk Cumhuriyetini, ilelebet muhafaza ve müdafaa etmektir.

Mevcudiyetinin ve istikbalinin yegâne temeli budur. Bu temel, senin en kıymetli hazinendir. İstikbalde dahi, seni bu hazineden mahrum etmek isteyecek dâhilî ve hâricî bedhahların olacaktır. Bir gün, istiklâl ve cumhuriyeti müdafaa mecburiyetine düşersen, vazifeye atılmak için, içinde bulunacağın vaziyetin imkân ve şeraitini düşünmeyeceksin! Bu imkân ve şerait, çok namüsait bir mahiyette tezahür edebilir. İstiklâl ve cumhuriyetine kastedecek düşmanlar, bütün dünyada emsali görülmemiş bir galibiyetin mümessili olabilirler. Cebren ve hile ile aziz vatanın bütün kaleleri zapt edilmiş, bütün tersanelerine girilmiş, bütün orduları dağıtılmış ve memleketin her köşesi bilfiil işgal edilmiş olabilir. Bütün bu şeraitten daha elîm ve daha vahim olmak üzere, memleketin dâhilinde iktidara sahip olanlar gaflet ve dalâlet ve hattâ hıyanet içinde bulunabilirler. Hattâ bu iktidar sahipleri şahsî menfaatlerini, müstevlîlerin siyasî emelleriyle tevhit edebilirler. Millet, fakr u zaruret içinde harap ve bîtap düşmüş olabilir.

Ey Türk istikbalinin evlâdı! İşte, bu ahval ve şerait içinde dahi vazifen, Türk istiklâl ve cumhuriyetini kurtarmaktır. Muhtaç olduğun kudret, damarlarındaki asil kanda mevcuttur.

Mustafa Kemal Atatürk



MUSTAFA KEMAL ATATÜRK

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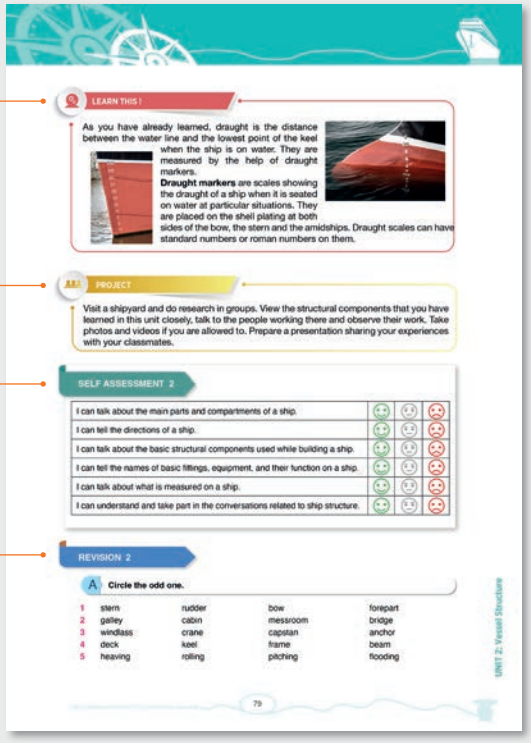
Unit Web Address

Learn This to point out some extra information about the subject

Project to help you apply what you have learned in a practical way

Self Assessment to provide you a valuable feedback on your progress

Revision to help you identify the areas that you need to improve



LEARN THIS !

As you have already learned, draught is the distance between the water line and the lowest point of the keel when the ship is on water. They are measured by the help of draught markers.

Draught markers are scales showing the draught of a ship when it is seated on water at particular situations. They are placed on the shell plating at both sides of the bow, the stern and the amidships. Draught scales can have standard numbers or roman numbers on them.

PROJECT

Visit a shipyard and do research in groups. View the structural components that you have learned in this unit closely, talk to the people working there and observe their work. Take photos and videos if you are allowed to. Prepare a presentation sharing your experiences with your classmates.

SELF ASSESSMENT 2

I can talk about the main parts and compartments of a ship.			
I can tell the directions of a ship.			
I can talk about the basic structural components used while building a ship.			
I can tell the names of basic fittings, equipment, and their function on a ship.			
I can talk about what is measured on a ship.			
I can understand and take part in the conversations related to ship structure.			

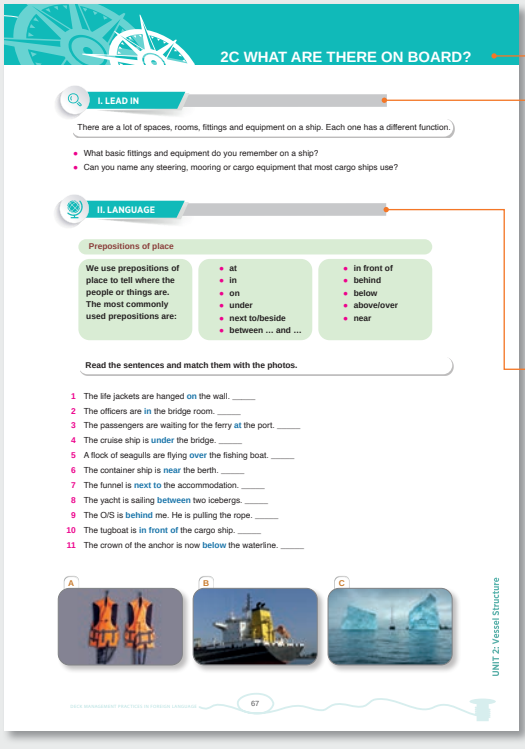
REVISION 2

A Circle the odd one.

1	stern	rudder	bow	forepart
2	galley	cabin	messroom	bridge
3	windlass	crane	capstan	anchor
4	deck	keel	frame	beam
5	heaving	rolling	pitching	flooding

UNIT 2: Vessel Structure

79



2C WHAT ARE THERE ON BOARD?

I. LEAD IN

There are a lot of spaces, rooms, fittings and equipment on a ship. Each one has a different function.

- What basic fittings and equipment do you remember on a ship?
- Can you name any steering, mooring or cargo equipment that most cargo ships use?

II. LANGUAGE

Prepositions of place

We use prepositions of place to tell where the people or things are. The most commonly used prepositions are:

- at
- in
- on
- under
- next to/beside
- between ... and ...
- in front of
- behind
- below
- above/over
- near

Read the sentences and match them with the photos.

1 The life jackets are hanged on the wall. _____
2 The officers are in the bridge room. _____
3 The passengers are waiting for the ferry at the port. _____
4 The cruise ship is under the bridge. _____
5 A flock of seagulls are flying over the fishing boat. _____
6 The container ship is near the berth. _____
7 The funnel is next to the accommodation. _____
8 The yacht is sailing between two icebergs. _____
9 The O/S is behind me. He is pulling the rope. _____
10 The tugboat is in front of the cargo ship. _____
11 The crown of the anchor is now below the waterline. _____

A B C

UNIT 2: Vessel Structure

67

Subtitle

Lead in to warm up to the subject covered in the section

Language to revise some grammar points

INTRODUCTION



Listening Exercise QR Code and Web Address



Visual References and Answer Key QR Code

LEAD IN

READING

WRITING

LISTENING

SPEAKING

VOCABULARY

LANGUAGE

READING AND WRITING

READING AND SPEAKING

READING AND VOCABULARY

WRITING AND SPEAKING

WRITING AND VOCABULARY

LISTENING AND READING

LISTENING AND VOCABULARY

LISTENING AND WRITING

LEARN THIS !

PROJECT



UNIT 1

SEAFARING ESSENTIALS

http://kitap.eba.gov.tr/KodSor.php?KOD=28483

- Recognise the terms about vessels and vessel types
- Get familiar with the crew members
- Practice sample conversations that you will need while working on board
- Recognise the documents and certificates necessary for seafarers
- Learn how to fill in the required forms for working on board

1A WHAT TYPE OF A VESSEL

I. LEAD IN

How do you define these terms with your own words?

ship

vessel

boat

II. VOCABULARY

Complete the sentences with the words above; then match them with the pictures.

1 A _____ is a watercraft moved on water by a propulsion system or by other means. ___

2 A _____ is a large watercraft navigating in deep seas or oceans. ___

3 A _____ is a small watercraft used in coastal areas and inland waters. ___



III. LANGUAGE

Present Simple

We use the present simple to talk about …

- facts,
- repeated actions,
- things that happen regularly,
- routines and habits.

**Be careful about the usage with different subjects in affirmative, negative and interrogative forms!*

- Water covers nearly ¾ of the Earth.
- We work on a passenger ship.
- The captain often sits in the bridge room.
- I don't have any training for working on a ship.
- This ship doesn't go to the east.
- Do you work at the deck department?
- Where does she live?

Fill in the blanks using present simple form of the verbs in parentheses.

1 I _____ (travel) by sea very often.
2 My uncle _____ (work) at a cargo carrier.
3 _____ the ship _____ (carry) liquid cargo?
4 Emma _____ (not have) a lot of friends in this country.
5 Where _____ you _____ (live)?
6 _____ he _____ (know) everything about vessels?
7 Ferries _____ (not stop) at this pier.
8 Passengers _____ (not take) their luggage during an emergency evacuation.
9 Who _____ (have) the responsibility of everything on board?
10 Everybody _____ (need) to check their life jackets.

LEARN THIS !

Vessels can be used for military, public utility, pleasure or commercial purposes. **Commercial vessels** are used to make profit. There are **four types** of commercial vessels:

- Cargo Carriers (Freighters),
- Passenger Ships,
- Auxiliary Vessels,
- Fishing Vessels.

1A WHAT TYPE OF A VESSEL

CARGO CARRIERS

I. LEAD IN

Cargo carriers transport cargo from one port to another. They carry dry cargo, liquid cargo, or both. They are classified according to the cargo they carry.

- What kind of things can ships carry?
- Do you think carrying goods by a ship is advantageous? Why? / Why not?

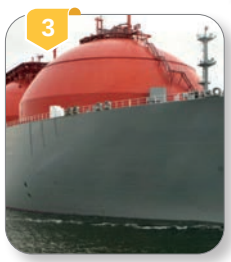
II. VOCABULARY

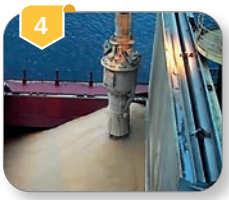
A **Match the words for cargo loading or cargo carrying equipment with the pictures.**

crane ____	cargo tank ____	corral ____	grab ____	cargo hold ____	hatch cover ____
spout ____	pipelines ____	cage ____	ramp____	conveyor belt ____	



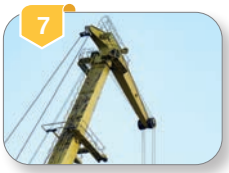




















B Write correct collocations using the adjectives for geometrical shapes.

spherical	cylindrical	rectangular	elliptical	conical
triangular	circular	square	cubic	



1 *A cubic cargo box*



2 _____



3 _____



4 _____



5 _____



6 _____



7 _____



8 _____



9 _____

C Match the words with the definitions. Check the meanings in your dictionaries.

1	commercial ___	a	to clean and purify
2	bulky ___	b	loading and storing evenly
3	leakproof ___	c	profit-oriented
4	stowage ___	d	firmly sealed to prevent outflow
5	sanitise ___	e	extremely large

1A WHAT TYPE OF A VESSEL

D **Match the halves to make collocations.**

1	stainless ___	a	products
2	explosive ___	b	system
3	perishable ___	c	vessel
4	semi-submersible ___	d	steel
5	propulsion ___	e	gas

E **Complete the sentences using the collocations in Exercise D.**

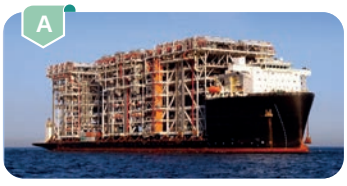
1 Cargo handling operation needs extra attention for _____ since it is dangerous.
2 _____ is used for the strength and resistance to corrosion in building ships.
3 _____ propels the vessel and helps it move on water.
4 _____ include easily spoiled products such as meat, dairy products, fruit etc.
5 Loading is easier with the use of a _____ when the cargo is huge.

III. READING

Read the sentences and complete them with the names of cargo carriers below, then match them with their pictures on Page 19.

Bulk carriers	General cargo ships	Livestock carriers	Container ships	Reefers
Gas tankers	Heavy-lift cargo carriers	Crude oil tankers	Chemical tankers	Ro-Ros

1 __*Reefers*__ have temperature-controlled holds for perishable cargo. *E*
2 _____ have large hulls, huge gates and ramps for vehicles. ___
3 _____ have leakproof cargo tanks to prevent oil leakage. ___
4 _____ have multiple cranes for practical cargo handling. ___
5 _____ have several holds and large hatch covers for unpackaged cargo. ___
6 _____ have spherical tanks to load their explosive cargo. ___
7 _____ have cages, or open-air corrals for animals. ___
8 _____ have huge cranes to load their bulky cargo. ___
9 _____ have box-shaped standard containers for the cargo. ___
10 _____ have pumps and pipelines to load and discharge the cargo, and they have cylindrical slop tanks. ___



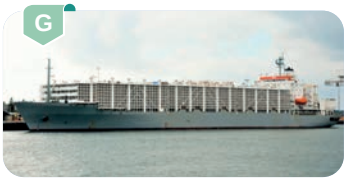


















IV. LISTENING

Listen to the recordings for further information about cargo carriers and write 6 cargo carriers mentioned.

http://kitap.eba.gov.tr/KodSor.php?KOD=31855

1 _____ 4 _____

2 _____ 5 _____

3 _____ 6 _____

V. WRITING

Complete the table with the information from Reading and Listening Exercises.

Type of the ship	Cargo equipment/ Distinctive features	Cargo type	Be careful about …
			sanitising holds well
	cylindrical slop tanks		
		livestock	
	huge cranes		
			not to damage vehicles
Reefer			

PASSENGER SHIPS

I. LEAD IN

A passenger ship is designed to transport passengers at sea. If a ship transports more than 12 passengers, it is accepted as a passenger ship by IMO (International Maritime Organization).

- Would you like to travel by ship? Why? Why not?

II. VOCABULARY

Write the words next to their definitions.

emergency	**voyage**	**fare**	**destination**	**route**

1 A journey by sea: _____
2 A place to go, or to send something: _____
3 The price of transportation: _____
4 The way to follow when traveling: _____
5 A sudden dangerous situation that needs urgent action: _____

III. LISTENING AND READING

A **Listen and fill in the gaps with a word to complete the paragraph.**

http://kitap.eba.gov.tr/KodSor.php?KOD=31858

PASSENGER SHIPS

Two types of passenger ships are commonly used today: **Ferries** and **Cruise Ships**. Ferries carry passengers and _____ **1** for short cross-water passages on _____ **2** routes. They have a regular schedule and a fixed fare. _____ **3** ships, on the other hand, are large passenger ships designed for pleasure _____ **4** They navigate on cruise destinations with several stops along the _____ **5.** They offer many onboard _____ **6** like restaurants, theatres, swimming pools, fitness centres. They arrange voyages to many popular cruise _____ **7** such as Mediterranean or Caribbean Islands. They must take _____ **8** precautions in full and they must always be ready for _____ **9** situations. Safety equipment and medical _____ **10** must be handy at all times in all passenger ships.

B **Write the names of the passenger ships below according to the paragraph in Exercise A on Page 20.**

1 _____



2 _____



IV. LISTENING AND WRITING

Listen to three speakers working on different types of vessels and complete the paragraphs with the missing words. Then, write what type of a vessel they are talking about.

http://kitap.eba.gov.tr/KodSor.php?KOD=31860



A _____

There is always a lot to do, so we have to work hard. Pollution prevention and _____ 1 precautions are very important, so the company we work for and port authorities often _____ 2 us. That's why, we have to deal with a lot of _____ 3 work all the time. We usually load the cargo by big _____ 4 at ports, and it is pumped out by ship's own pumps at discharge points. After loading the cargo, we leave the port. We spend all our time preparing for the next cargo during the voyage. We wash the tanks, we drain the_____ 5, we clean and dispose the waste water. Each operation must be under the supervision of an officer, so officers must keep _____ 6 in turns, during the voyage.



B _____

We load the cargo in standard containers of 20 or 40 feet. The cargo loading time is shorter than other ships. That's why, we deliver the cargo faster, and we can do more voyages than other ships. You can carry almost everything that you can put in the containers in this ship. We usually load and discharge cargo at more than one port at a voyage. The _____ 7 is very important, so we have to stow the cargo according to a plan. We must check each container carefully for its convenience to the stowage plan or for any_____ 8. If there is a damage, we must _____ 9 report it. After loading, we must check the_____10. If the weather is bad, extra lashing might be needed.

1A WHAT TYPE OF A VESSEL



C _____

Our working conditions may seem easier, but it has its own difficulties. We work in clean uniforms; we see a lot of people and we visit a lot of ports. These are the advantages. However, we have a lot of extra _____ **11** as we carry people. We have ship handling and _____ **12** services units. I work at the ship handling unit. We are responsible for safe _____ **13** of the ship. Passenger services unit, on the other hand, work very hard. They provide 24/7 service to the passengers. Their working conditions are almost the same as a large hotel. The staff need a special training and a certificate to work in these ships. With this certificate, they are required to know how to direct and control people, especially in _____ **14**.

V. VOCABULARY

A **Write the highligted words from the Listening Exercise on Pages 21 and 22 next to their definitions.**

1	a document to show that you have got the required trainining
2	to hand over something to the required adress or person
3	actions taken to prevent any possible future danger or harm
4	to pour the water or another liquid out of something gradually
5	to put or store something in an order
6	a rope used for tying something securely
7	things hard to struggle, hardships
8	to unload

B **Circle the correct form of the words in bold to complete the sentences.**

1 Who is **responsible/responsibility** for cleaning the cabins?
2 The proper **stow/stowage** of the cargo is quite important on these ships.
3 **Safe/Safety** of the passengers is the first thing to care about on a passenger ship.
4 By taking only a few necessary precautions, we can **prevent/prevention** a big disaster.
5 If the work is risky, you have to work under the **supervise/supervision** of an authorised person.

C Match the halves to form meaningful collocations.

1 safety ___	a work
2 paper ___	b services
3 pollution ___	c precautions
4 passenger ___	d prevention

D Write the correct collocations from Exercise C to complete the sentences below.

1 _____ rules are necessary to keep seas and oceans clean.
2 There is a lot of _____ for onboard operations like reporting and recordings.
3 You have to be polite and patient if you work at _____.
4 We must check all _____ before cargo handling operations.

VI. LISTENING

A Listen to the conversation of three cadets and write the type of the vessel that each cadet had training.

http://kitap.eba.gov.tr/KodSor.php?KOD=31865



AHMET



ELİF



ERDEM

B **Listen to the conversation in Exercise A again and write the name of the cadet for each sentence below.**

http://kitap.eba.gov.tr/KodSor.php?KOD=31865

1 _____ had plenty of spare time.
2 _____ had a very tiring experience as a cadet.
3 _____ gives information about her/his destinations.
4 _____ gives details about the work her/his ship.
5 _____ doesn't give information about the wages.
6 _____ is less happy than the other two about her/his experience.
7 _____'s ship stopped at multiple ports during one voyage.
8 _____ had longer voyages than the other two.

VII. READING AND SPEAKING

Read the dialogue between two maritime high school students and practice it with your partner using your own names and choices.



AUXILIARY VESSELS

I. LEAD IN

Auxiliary vessels help other vessels in many different ways. Some auxiliary vessels do underwater infrastructure works like pipe laying or cable laying.

- Do you know any auxiliary vessels? What are they used for?

II. VOCABULARY

A Match the pictures with the given words or phrases.

1 salvage operation
2 underwater infrastructure
3 cargo stowage
4 provision
5 contaminants
6 towing a vessel













B Match the verbs with their definitions.

1	scrape	_____ a	to uphold good condition, to keep operating
2	widen	_____ b	to accompany a ship in obstructed waterways
3	manoeuvre	_____ c	to make deeper
4	have a breakdown	_____ d	to make wider
5	maintain	_____ e	to have a mechanical failure
6	escort (a vessel)	_____ f	to remove something from the sea-bottom by a dredging tool
7	deepen	_____ g	to steer a vessel for turning or directing it to a route

1A WHAT TYPE OF A VESSEL

III. READING AND WRITING

A **Read the sentences and write the names of the auxiliary vessels.**

Tugs	OSVs	Cable layers	Icebreakers	Dredgers

1 _____ break the ice on ice-covered water to clear the way for other vessels.

2 _____ are often used in salvage operations and they tow vessels when they have a breakdown. These vessels also help large vessels to manoeuvre when they move in and out of ports, or pass through narrow canals.

3 _____ meet various needs of ships such as fuel, provision, medical assistance, personnel, etc. They also maintain oil platforms in deep oceans.

4 _____ lay, maintain and repair underwater power and data cables.

5 _____ scrape and remove the sand, gravel, and other contaminants from the seabed to widen and deepen narrow canals for larger vessels.

B **Write the correct auxiliary vessel from Exercise A under the photos below.**



1 _____



2 _____



3 _____



4 _____



5 *Cable layer*

FISHING VESSELS

I. LEAD IN

There are various commercial fishing vessels today. These vessels are used to catch marine species or freshwater fish. Most commonly used fishing vessels are **trawlers**, **gillnetters**, **longliners** and **purse seiners**. Special **fish processing vessels** usually get the catch from the fishing vessels and make it ready for the market.

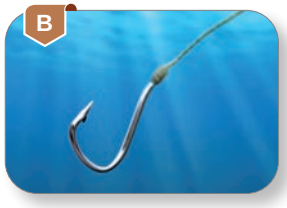
- Have you ever seen a fishing vessel? What type of a fishing vessel was that?
- What kind of equipment is used on fishing vessels?

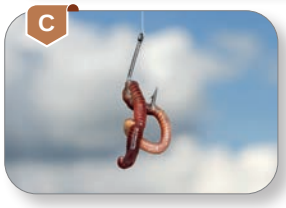
II. VOCABULARY

A Match the words with the photos below.

1 school of fish ____ **2 bait _____** **3 hook ____** **4 pelagic species ____**









B Complete the sentences with the given words.

caught **pursed** **trapped** **dragged**

The thief put everything he stole from the house into a cloth bag and _____ **1** it tightly. Then, he _____ **2** the heavy bag along the backyard of the house. By blind luck, there was a police officer passing by. The police officer saw him and _____ **3** him tightly. He was badly _____ **4.**

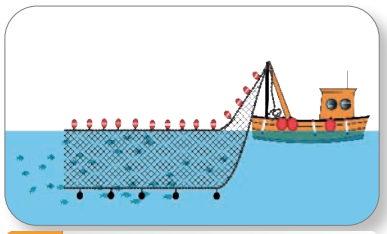
1A WHAT TYPE OF A VESSEL

III. READING

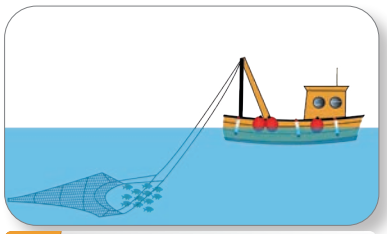
A Match the fishing vessels with the sentences defining them.

1 Gillnetters _____	a Long fishing lines and lots of baited hooks are used to catch the fish.
2 Longliners _____	b A conical trawl net with a wide opening is lowered down and dragged under the water to catch a wide array of fish.
3 Seiners _____	c Large oceangoing vessels process the catch in open seas. They have necessary equipment on board for various processes such as sorting, cleaning, and freezing.
4 Trawlers _____	d A flat, rectangular gillnet is hanged down into the water like a wall and the fish is trapped when they are trying to pass through it.
5 Fish Processing Vessels _____	e A seine net surrounds the school of fish first, and when the fish enters in, the net is pursed like a bag to trap the fish.

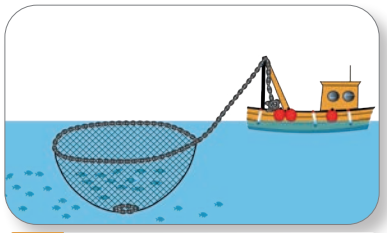
B Choose four of the fishing vessels from Exercise A and write them under the pictures.



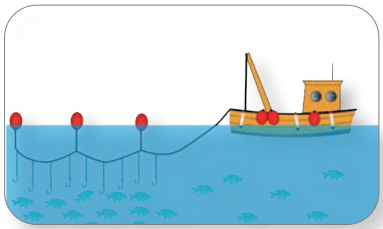
1 _____



2 _____



3 _____



4 _____

IV. WRITING

Write a short paragraph about the type of the vessel you would like to work in the future. Give details and explain your reasons.

I. LEAD IN

- Do you know who the crew of a vessel consists of?
- Put the words below into correct order and complete the phrase. Read the paragraph in Vocabulary Exercise B, and check your answer.

Seafarers **Standards** **Certification** **Training**

_____of _____, _____ and Watchkeeping for _____

- What kind of qualifications do you think you need to gain before you start working on board?

II. VOCABULARY

A Work in pairs and match the words with their definitions.

oversee	**in charge of**	**experience**	**training**	**crew**
carry on	**certification**	**duty**	**seafarer**	**rank**

1 _____: a position in hierarchy of an organisation
2 _____: the process of learning certain skills
3 _____: to continue an activity or a task
4 _____: something you have to do because it is a part of your job
5 _____: the process of earning an official document as a proof for your qualifications or training
6 _____: a person who works on a ship
7 _____: responsible for
8 _____: a group of people who work together on a ship
9 _____: knowledge or skill gained by practising a particular job
10 _____: to watch or manage a work to make sure that it is done correctly

B Read the paragraph and complete it with five of the words in Exercise A.

The _____ 1 of a ship work in coordination to carry on ship operations. There is a standard ranking system in most commercial vessels. This system shows the duties of the crew members and what qualifications are necessary for each _____ 2. The master is above all ranks on board because s/he oversees and is _____ 3 every operation in all departments. Standards of Training, _____ 4 and Watchkteeping for Seafarers (STCW) standardise most of these qualifications such as certification, training, _____ 5, language level, etc.

III. LISTENING AND VOCABULARY

A **Listen to the master of the ship talking about his work. Complete the phrases with the words from the box.**

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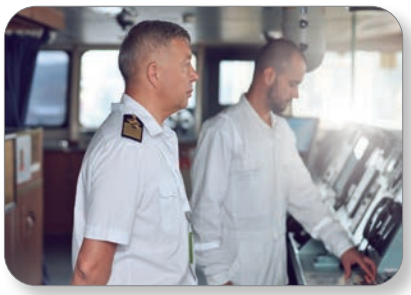
1 the highest _____
2 on _____ 24 hours a day
3 the_____ and passengers' safety
4 according to the _____
5 need a lot of _____

standards
crew
rank
experience
duty

B **Listen to the recording again and tick the phrases you hear.**

http://kitap.eba.gov.tr/KodSor.php?KOD=34224

1 have duties in the deck department _____
2 in charge of everyone and everything _____
3 communications with the shore_____
4 keep watch twice a day _____
5 do a lot of paperwork _____
6 represent the company or the ship owner _____
7 fill out engine log book _____
8 update the charts ____



C **Listen to the text about the duties of the crew in different departments of a vessel and fill in the blanks.**

http://kitap.eba.gov.tr/KodSor.php?KOD=34225

DUTIES OF THE CREW

Deck crew is responsible for the _____ **1**, cargo operations, _____ **2** and anchoring operations. They maintain the hull, cargo spaces, cargo gear, safety equipment and deck fittings. Deck crew consists of deck officers and deck ratings. Deck officers fill out the deck log book related to their work during _____ **3**.

Engine crew is responsible for keeping the vessel's machinery operational all the time. They repair and _____ **4** engines, _____ **5** system, pumps, winches, electrical power supply system, fuel oil system and technological devices such as freshwater generations, fuel treatment and garbage incineration systems. The engine department consists of marine engineers and ratings. Marine engineers are responsible for filling out the engine _____ **6**.

Catering crew prepare and serve the meals, and do the _____ **7** on board. There are usually more crew members in the catering department of passenger ships than cargo carriers. Generally, a cook and a steward carry on the _____ **8** work on a cargo vessel.

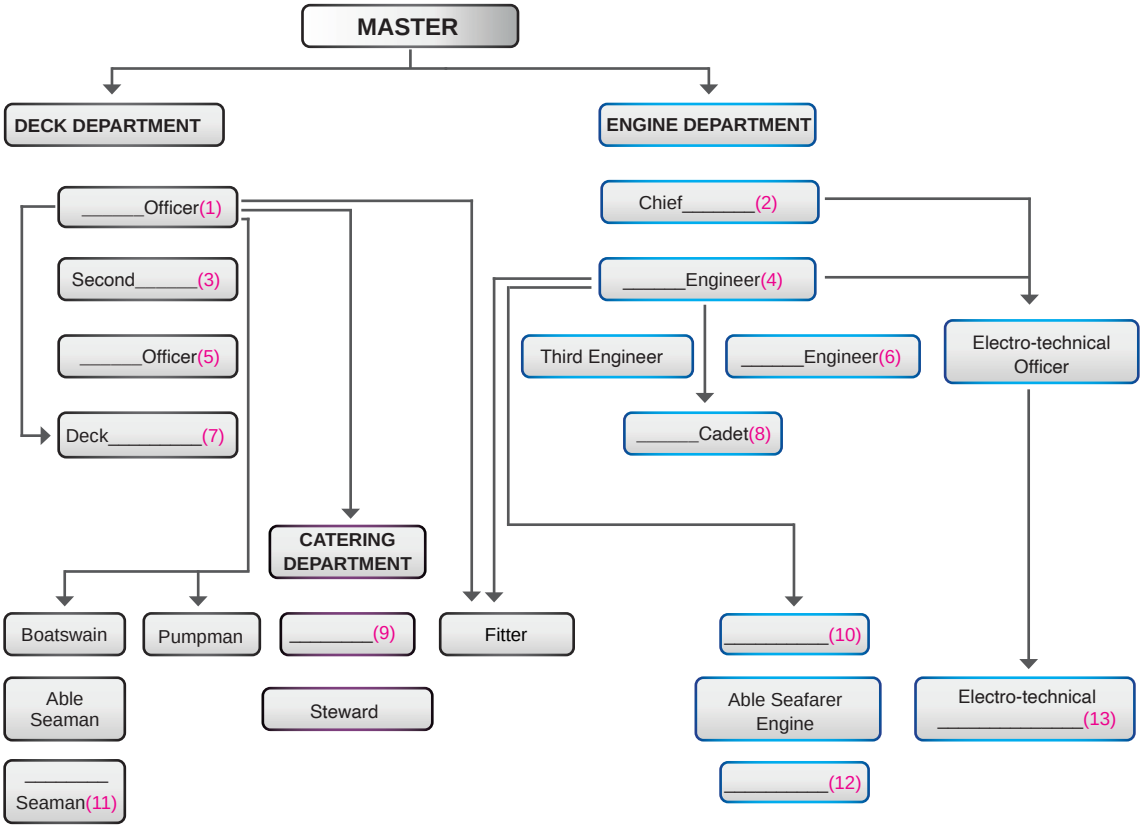
D **Match the words that you used in Exercise C on Page 30 with their definitions.**

1 _____: taking care of living spaces especially by cleaning
2 _____: the force produced by a system to move a vessel
3 _____: an official document that you record information
4 _____: attaching a vessel to land to keep it in place
5 _____: to keep something operative and in good condition
6 _____: any job related to preparing and serving food and drinks
7 _____: the act of directing a ship from one place to another
8 _____: watching a particular work and being responsible for it for a period of time

IV. READING AND VOCABULARY

A **Work in pairs and complete the ranking diagram below with the words from the box. Check the words from your dictionary.**

Oiler Cadet Donkeyman Third Chief Engine Cook Second Ordinary Officer Engineer Rating Fourth



1B WHO WORKS ON BOARD

B **Study the ranking diagram in Exercise A and say if the sentences are TRUE or FALSE.**

1 There are three main departments on a ship. _____
2 The master is only in charge of the deck department. _____
3 The third officer reports to the deck cadet. _____
4 The boatswain is responsible for the deck ratings. _____
5 The fitter works with more than one department. _____

C **Complete the sentences with given words.**

pumpman	cadet	rating	engineer	fitter	officer

1 A/An _____ learns and practices the necessary skills for her/his future job.
2 A/An _____ has the authority to command the crew under her/his responsibility.
3 A/An _____ works under the command of officers on board.
4 A/An _____ is in charge of the engines and other machinery on a vessel.
5 A/An _____ is responsible for operating, maintaining and repairing liquid cargo equipment especially on tankers.
6 A/An _____ repairs metal structures of the hull, decks, tanks, pipes and the machinery on board.

DECK CREW

I. LEAD IN

Guess the correct words to complete the sentences below. Then check your answers from the ranking diagram on Page 31.

1 _____ holds the highest rank in the deck department.
2 _____ holds the lowest rank in the deck department.



II. LISTENING

A **Listen to the seafarers from the deck department and write the correct rank. Then check your answers from the ranking diagram on Page 31.**

http://kitap.eba.gov.tr/KodSor.php?KOD=34226

Chief Officer	Third Officer	Boatswain
Second Officer	Ordinary Seaman	Able Seaman

Speaker 1: _____ Speaker 4: _____
Speaker 2: _____ Speaker 5: _____
Speaker 3: _____ Speaker 6: _____

B **Listen to the seafarers again and fill in the blanks with one or two words.**

http://kitap.eba.gov.tr/KodSor.php?KOD=34226

S1 I am the head of the _____. I check anchoring and _____ I report to the chief officer about the work.

S2 I am a _____ and experienced member of the deck department. I handle life-saving appliances, cargo gear and _____equipment.

S3 I come after the _____ in the deck department. I assist the chief officer with the checks and the maintenance of _____ and life-saving equipment.

S4 I am at the _____ as a seafarer; so, I don't have high qualifications or much experience.

S5 I am responsible for _____operations and maintenance of the equipment on the bridge. I also update the _____ and publications.

S6 I schedule the work on the deck and I _____ the deck crew frequently. I am responsible for _____, cargo handling and maintenance operations.

C **Listen to the deck officers and fill in the time chart below.**

http://kitap.eba.gov.tr/KodSor.php?KOD=34227

THE OFFICER	WATCHKEEPING TIME INTERVALS FOR DECK OFFICERS					
	0000-0400	0400-0800	0800-1200	1200-1600	1600-2000	2000-0000
CHIEF OFFICER		X			X	
SECOND OFFICER						
THIRD OFFICER						

1B WHO WORKS ON BOARD

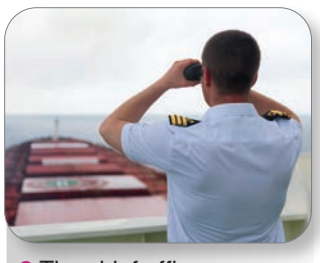
III. WRITING

Choose a phrase from the box make sentences as in the example.

check out the documents	schedule daily crew work	update the navigational charts
paint the deck	fill out safety checklist	check the mooring equipment
keep his watch	~~train a deck cadet~~	communicate with the shore



1 The second officer *is training a deck cadet.*



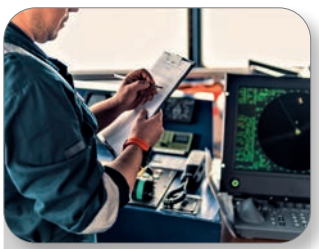
2 The chief officer _____



3 The second officer _____



4 Two female officers _____



5 The third officer _____



6 The master _____



7 The master and the officer _____



8 A deck rating _____



9 The boatswain and the able seaman _____

IV. READING

Complete the dialogue with the given words.

duties	handling	seaman	messroom	experience

Ahmet : Hello. I'm Ahmet. I'm the new able _____ **1.**

Michael: Welcome on board Ahmet. I'm Michael. I am the chief officer.

Ahmet : Nice to meet you, sir.

Michael: Pleased to meet you, too. What work _____ **2** do you have?

Ahmet : I worked as an able seaman on M/V MARMARA, a cargo ship, sir. Repairing the deck, _____ **3** life-saving appliances and operating the deck machinery were some of my _____ **4**.

Michael: Good. You will take your orders from the boatswain. I will introduce you to him. He will show you the crew _____ **5** and your cabin.

Ahmet : OK, sir. Thank you!

V. WRITING AND SPEAKING

Write a similar dialogue changing the roles and tasks. Role-play with your partner.

LEARN THIS !

An **abbreviation** is basically the short form of a word or a phrase. We usually make the abbreviation of a phrase by using the initial (first) letters of the words in that phrase. There are special abbreviations used in maritime.

► **M/V: Motor Vessel A/B: Able Seaman**

1B WHO WORKS ON BOARD

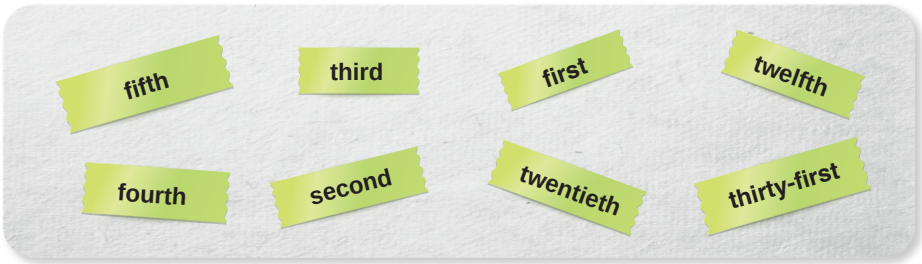
VI. VOCABULARY

A Match the abbreviations with the ranks used in maritime.

1	Chief Officer _____	a	D/C
2	Second Officer _____	b	C/O
3	Third Officer _____	c	2/O
4	Deck Cadet _____	d	O/S
5	Ordinary Seaman _____	e	3/O

B Draw a line to match each ordinal number with its written form.

1st 2nd 3rd 4th 5th 12th 20th 31st



C Complete the sentences using the numbers in Exercise B.

1 Students at the _____ grade take an examination to enter the university in Türkiye.
2 The _____ December is the last day of the year.
3 The _____ mate comes after the first mate in command.
4 This is my _____ driving test. I couldn't pass four times before.
5 On the _____ of April people play tricks on others to have fun.
6 The _____ racer usually takes a bronze medal.
7 Thursday is the _____ day of school.
8 Electricity is the most important invention of the _____ century.

D Match the ranks in the deck department with their synonyms.

1	third officer _____	a	welder
2	deck cadet _____	b	second mate
3	master _____	c	trainee officer
4	chief officer _____	d	captain
5	boatswain _____	e	third mate
6	fitter _____	f	bosun
7	second officer_____	g	first mate

E Complete the sentences with a preposition from the box.

for	with	to	from	of

1 All operations on board are carried out under the command _____ the master.
2 The crew work in coordination _____ the port workers during cargo loading/discharging.
3 Both deck department and engine department are responsible _____ safe navigation.
4 We're waiting to take the new orders _____ the master.
5 The first mate and the chief engineer directly report _____ the master.

VII. LANGUAGE

Present Continuous

We use the **present continuous** to talk about …

- events in progress at the time of speaking,
- temporary states happening around the time of speaking,
- gradual changes,
- plans and arrangements that have already been made.

Be careful about the spelling changes with some verbs when adding **-ing to the verb!*

- I **am checking** the ropes and Simon **is cleaning** the deck.
- The weather condition **is getting** worse, so we must be careful.
- We **are entering** the Suez Canal right now.
- I**'m not planning** to go ashore today.
- The Second officer **isn't taking** part in the operations today because he is ill.
- The crew members **aren't working** on the deck today.
- **Are** you **feeling** better today? Yes, I **am**.
- **Is** he **practising** regularly? No, he **isn't**.
- Where **are** we **having** the safety meeting?

A Fill in the gaps using present continuous form of the verbs in parentheses.

1 I _____ **(not drive)** to work these days because my car is broken.
2 My mother _____ **(work)** very hard for the company's new project this season.
3 _____ the workers _____ **(carry)** the boxes carefully?
4 John _____ **(make)** new friends in his new school.
5 _____ you _____ **(feel)** better right now?
6 We _____ **(not sail)** today, because there's a storm coming.
7 She _____ **(fly)** to London tomorrow night.
8 What _____ the deck ratings _____ **(do)**?
9 _____ the officer _____ **(take)** a rest? I need to talk to him.
10 Ashley _____ **(not come)** with us, she will take a taxi.

B Complete the sentences meaningfully using present continuous.

1 I _____ these days.
2 My mother _____ today.
3 My teacher _____ at the moment.
4 My desk mate _____ now.
5 We _____ in this lesson.

1B WHO WORKS ON BOARD

ENGINE AND CATERING CREW

I. LEAD IN

Look at the photos and match them with the sentences below.

1 An engine crew member is checking the parameters in the engine control room. ____
2 The catering crew is preparing the meals in the galley. ____





II. VOCABULARY

A **Work in pairs and write the correct form of the words.**

VERB	NOUN	ADJECTIVE
1 _____	navigation	navigational
operate	operation	2 _____
command	3 _____	commanding
authorise	authorisation	4 _____
regulate	5 _____	regulated
pollute	pollution	6 _____
7 _____	maintenance	maintained

B **Complete the sentences with the correct words from Exercise A.**

1 _____ seas threaten both marine life and human health.
2 The errors in planning might result in _____ failure during cargo loading.
3 Engine ratings usually _____ the equipment in the engine room.
4 According to the _____, all seafarers must have first aid training.
5 The second officer takes the _____ of the ship at midnight.
6 Only _____ personnel can enter the engine room.
7 Seafarers use several special equipment to _____ at sea.

C **Work in pairs and match the halves to form meaningful phrases. Check the meanings in your dictionaries.**

1 sewage _____	a records
2 lubricating _____	b water
3 log book _____	c treatment
4 moving _____	d oil
5 auxiliary _____	e machinery
6 bilge _____	f part

III. READING

A **Read the text and fill in the blanks with the given words. Check your answers from the ranking diagram on Page 31.**

~~fourth engineer~~	oiler	engine cadet	able seafarer engine	electro-technical rating
third engineer	donkeyman	chief engineer	second engineer	electro-technical officer

- The _____ 1 is the head of the engine department. S/he oversees all operations in the engine room and checks the related machinery for a safe voyage.
- The _____ 2 is the second person in charge in the engine department. S/he is responsible for all routine maintenance and operational activities.
- The _____ 3 is generally responsible for the operation of auxiliary engines and systems.
- The ***fourth engineer*** 4 is generally responsible for sewage treatment, bilge water, lubricating and waste oil.
- The _____ 5 observes, learns, and practices the operations of the engine department while assisting the engineers.
- The _____ 6 is responsible for the operation, maintenance and repairs of all electronic and electrical equipment on board.
- A/An _____ 7 assists electro-technical officer with the maintenance and repairs of electrical and electronic equipment on board.
- The _____ 8 is the head of engine ratings and gets them to do the work properly.
- A/An _____ 9 is an experienced and qualified rating in the engine room. S/he takes part in the maintenance and repairs of the main engine and auxiliary machinery.
- A/An _____ 10 lubricates moving parts of the machinery and maintains the oil levels.

B **Read the text again and write TRUE or FALSE next to the sentences.**

1 There are three engineers on all vessels. _____
2 Donkeyman is the trainee officer. _____
3 Chief engineer has a higher rank than an able seafarer engine. _____
4 Engine cadet reports to the donkeyman. _____
5 The electro-technical officer maintains communication devices on board. _____

C **Read the sentences and write C for the cook and S for steward in the catering department of a ship.**

1 I always prepare a healthy menu for the crew members. _____
2 I help serving the meals and snacks. _____
3 I am responsible for preparing the meals on time. _____
4 I order and store the galley supplies. _____
5 Cleaning and maintaining the living quarters is in my responsibility. _____
6 I often check the galley to keep it maintained and clean. _____
7 I order and store the domestic provisions such as soap, paper towel, toilet paper, clean sheets and provide them to the crew members. _____

IV. SPEAKING

Work in groups and discuss your answers to these questions.

1 Which rank do you prefer to have when you work on board? Why?
2 What are the advantages and disadvantages of the rank you have chosen?

e.g.*, *I would like to work as a master. The master oversees everything on board, so s/he must be very careful and authoritarian. I believe I have these characteristics. There is too much responsibility in this job, but it is challenging as well, and you can earn a lot.

V. WRITING

Imagine you are working on board. Write a short paragraph about your work and duties. Say what parts of your job you like and what parts you find difficult.

GET TO WORK

I. LEAD IN

Working on board is challenging. It needs good planning, discipline and coordination of the crew members. Crew members need to get familiar with the vessel, their colleagues and their duties as soon as they engage to their vessels.

- What kind of qualifications do you think you need to gain before you start working on board?

II. VOCABULARY

A **Work in pairs and match the words with their definitions.**

examination	proficiency	familiarise	valid	graduate
survival	application	designate	employ	marital

1 _____: to give information about something to someone to make them familiar with it
2 _____: staying alive or overcoming a difficulty
3 _____: to finish school, college or university successfully
4 _____: a written official request for a job or a position
5 _____: connected with marriage
6 _____: to choose someone officially to do a particular job
7 _____: to give someone a job and pay them for it
8 _____: legally and officially acceptable document for a particular period of time
9 _____: having enough ability to do something well
10 _____: checking someone carefully to find out about her/his physical condition

B **Work in pairs and write the correct form of the words.**

VERB	NOUN
graduate	1 _____
2 _____	security
employ	3 _____
familiarise	4 _____
5 _____	survival
6 _____	application
prevent	7 _____

C **Fill in the blanks with the correct words from Exercise B on Page 41.**

1 Seafarers were lucky to _____ after the explosion on board.
2 Shipping companies provide _____ for the new graduates of maritime schools.
3 Pollution _____ is an important issue for maritime.
4 You need special certificates to _____ for this position.
5 The new crew members have a week of training and _____.
6 All the maritime students wear their white uniforms at their _____ ceremony.
7 You must _____ the accident area before you start first aid.

III. LISTENING

A **Listen and fill in the job application form using the information in the dialogue.**

http://kitap.eba.gov.tr/KodSor.php?KOD=37978

SEAMAN'S EMPLOYMENT APPLICATION FORM

Position applied for	1 _____		
Capacity	2 _____		
Family name	3 _____	**First name**	Mustafa
ID number	280870858165	**Date of birth**	10/07/1998
Telephone	90212365803	**Cell phone**	0555495807
Last graduated from	4 _____	**Graduation date**	5 _____
Marital status	6 _____	**Military service**	Done

Foreign Language	7 _____	**Level**	Basic ☐ Intermediate ☑ Upper intermediate ☐ Advanced ☐
Second Foreign Language	8 _____	**Level**	Basic ☑ Intermediate ☐ Upper intermediate ☐ Advanced ☐

Sea service

Company	Vessel's name	Flag	Position	From (Month/ Year)	To (Month/ Year)
9 _____	M/V SAKA	Turkish	10 _____	03/2020	11 ___/_____

Documents

Name	Number	Valid until
Seaman's Book	4343018376	09/2025
Civil Travel Passport	W000122578	12/2024
Medical Examination Certificate	186321	09/2023
Yellow Fever	A5323	11/2023
Register Port	12 _____	

Certificates

Name of the certificate		Name of the certificate	
Personal Survival Techniques	☑	Proficiency in Survival Craft and Rescue Boats	☑
Elementary First Aid Training	☑	Security–Related Familiarisation	☑
Fire Prevention and Fire-Fighting	☑	Security Awareness	☑
Personal Safety and Social Responsibility	☑	Designated Security Duties	☑

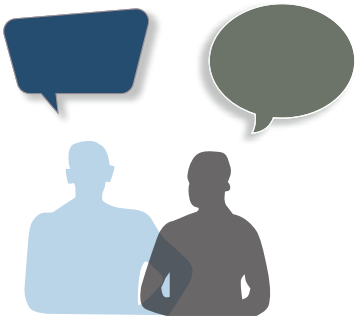
B **Read the application form and write TRUE or FALSE for the sentences below.**

1 The applicant is a college graduate. _____
2 The applicant is single. _____
3 The applicant knows German very well. _____
4 The applicant was 21 years old when he first started working on board. _____
5 The register port of the applicant is in Germany. _____
6 The applicant has all basic certificates for a seafarer. _____

IV. WRITING AND SPEAKING

A **Complete the dialogue between the O/S and the C/O of the ship.**

Ordinary Seaman: Good afternoon, you must be the chief officer. I am the new ordinary seaman.
Chief Officer: Good afternoon! Welcome on board.
Ordinary Seaman: Thank you.
Chief Officer: _____ **1** family name?
Ordinary Seaman: Akaydın.
Chief Officer: OK. _____ **2** first name?
Ordinary Seaman: Mustafa.
Chief Officer: _____ **3** from?
Ordinary Seaman: I'm from İzmir in Türkiye.
Chief Officer: Humm. _____ **4** married?
Ordinary Seaman: No, sir.
Chief Officer: _____ **5** birth?
Ordinary Seaman: The 10th of July 1998.
Chief Officer: _____ **6** your passport and seaman's book with you?
Ordinary Seaman: Yes, I do, sir.
Chief Officer: OK, that is all for now. The second officer is in the office. Hand in your passport, seaman's book and other documents to him. I will introduce you to the bosun soon.
Ordinary Seaman: OK, sir. See you soon.



B **Write a similar dialogue changing the roles and practice with your partner.**

V. READING

A **Read the sentences below and complete the text with them.**

a **I maintain the GMDSS and all the navigation equipment on board.**
b **I usually have a toast, scrambled eggs, and milk for breakfast.**
c **I go to the bridge and plan out my day including the shipboard operations and my navigational watch at 10:15.**
d **I do the periodic check of eye wash and medical first aid kits kept in various locations on board as well.**
e **I usually eat alone because of my work schedule.**
f **All the lights inside the navigation bridge are switched off when we sail during night hours.**

MY DAY AS A SECOND OFFICER

Hello. My name is Hasan. I work as a second officer on M/V SEALION 2. I wake up at 10 a.m., have a cup of coffee and start my daily routine. _____ _____ **1** My routine changes a bit during the cargo operations, arrival at the port or departure from the port.

It is my responsibility to maintain the hospital and medical locker on board as the medical officer. I also take care of the stationary locker, so I check them regularly. _____ _____ **2** I have lunch at 11:30 a.m. and I go back to the bridge to take over the navigation watch from the third officer at 11:50 a.m.



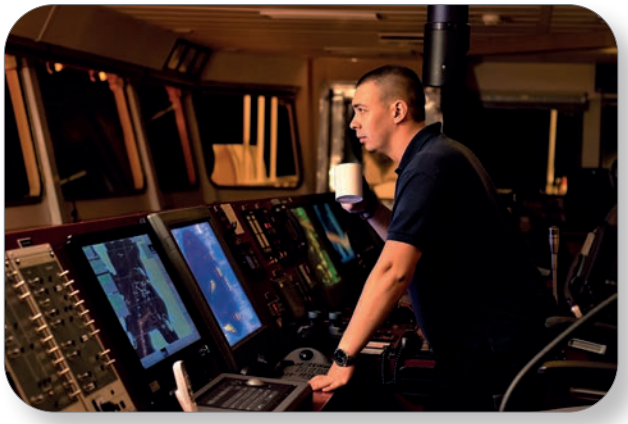
The second officer keeps navigational watch from 12:00 to 16:00. During my watch, I continuously monitor the track of the vessel, regular position of plotting to keep a safe navigation. _____ _____ _____ **3** I start my routine noon checks of the equipment and fill out the check list. We have daily, weekly and monthly checks as well. We must make a proper report of any problems with the equipment to keep them maintained.

I hand over the navigational watch to the chief officer at 4 p.m. and complete my paper work. I have time to rest or tidy my room after the watchkeeping. I usually ask for my daily needs such as clean towel, clean sheet, soap, toilet paper or paper towel from the steward. After that, I get ready for the gym, work out for about an hour and take a shower. Dinner on board starts at around 6. _____ _____ **4** Almost everybody is asleep at 4 o'clock in the morning, and at my

lunch time everybody is on duty on board. I sometimes have a chance to eat dinner with some mates in the evening.

In my free time, I usually catch up with my other ship mates in the messroom. We chat and play some games on play station or watch films. When I connect to the internet; I call my family and friends because I really miss them very much.

I go to sleep at 9 o'clock in the evening and I wake up for the night watch at 11:30 p.m. My night watch is between 00:00 and 04:00. I check the night order book for the watch. _____ **5** Waking up in the middle of the night for the watch is quite uncomfortable but I like observing the night sky. You can see almost all the stars in the sky if the sky is clear while you are sailing in the deep oceans. I have breakfast until 04:30 when the night watch is over. _____ _____ **6** Then, I go to my cabin, change my clothes and sleep at around 5 in the morning. It is quite a difficult job to be on board far away from your home and family, but I love being at sea and sailing around the world.



B **Read the text again and say if the sentences are TRUE or FALSE.**

1 Hasan sleeps for six hours a day. _____
2 Hasan never changes his routine on board. _____
3 The third officer hands over the watch at noon. _____
4 The chief officer hands over the watch in the afternoon. _____
5 He usually has meals together with mates. _____
6 Hasan doesn't like getting up for the night watch. _____

C **Read the interview on Page 46 and match the questions with the answers.**

a **Can you tell us the pros and cons of working on a container ship?**
b **What do you recommend to high school students who want to work on board in the future?**
c **What is a day like on board?**
d **What do you usually do on board?**
e **Hello Eylül Naz, can you introduce yourself, please?**
f **What type of a ship are you training at?**
g **How long have you been training on board?**
h **What is it like to be a woman on board? Can you tell us the advantages or disadvantages?**

1C LIFE ON BOARD



1 _____

I am Eylül Naz Kesmenoğlu. I am 21 years old. I graduated from Ziya Kalkavan Maritime High School and I am currently studying Maritime Transportation and Management Engineering, at Piri Reis University.

2 _____

I have been on board for almost 10 months.

3 _____

It is a container ship.

4 _____

There is a fixed plan on container ships. You usually know when to stop at a particular port in advance, so you can arrange your time according to it. I think it is the biggest advantage. We started the voyage in Kenya and we respectively stop in Malaysia, Singapore and China. Then, we will finally return to Kenya. There are several ports close to one another, so we work on and on. It is exhausting. This is the disadvantage of container ships.

5 _____

I usually take part in maintenance and repairs on the deck. I assist the officers in various works such as checking, maintaining and repairing life-saving and lashing equipment, preparing necessary documents during cargo operations and checking the draught.

6 _____

I usually keep watch at the beginning of the day with the chief officer. Then, I assist the third officer in overseeing the maintenance work on the deck, checking the life-saving appliances and drawing up the documents related to our work. We usually have some spare time when we finish the work before the second watch. We also have half-hour tea breaks at 10:00 a.m. and 03:00 p.m. I usually play chess, backgammon or video games in my spare time. At the end of the day, the next day's work is planned.

7 _____

I see no difference between being a woman or a man on board. I have had no extra advantage or difficulty due to my gender. I have always done what I have been told. I have had no hesitation in asking for help when I need, either.

8 _____

They should know that they will work hard, so they should develop themselves very well. Having high grades at school is not enough to do this job. They should also develop their hand-eye coordination and understanding. In addition, language level should be well enough to read necessary resource books and operating manuals for the machinery. They will also need to communicate with the port officers or other vessels. That's why, they must learn English very well.

Thank you for your time and precious recommendations for our students, Eylül.

It was my pleasure.

D **Use the highlighted words from the interwiev on Page 46 to complete the sentences.**

1 We must check electrical _____ every time we use them.
2 I usually spend my lunch _____ in the cafeteria.
3 _____ equality is an important issue in employment.
4 Read the instruction _____ carefully when you use this equipment.
5 Most seafarers get _____ payment before they embark their vessels.
6 _____ department is testing on the new motor.
7 We must check and sign all port _____ before departure.

VI. LISTENING

Listen to the dialogue between the deck cadet and the second officer and put the sentences into correct order.

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a Very well, then. I will inform you about this watch when you get used to the darkness. ___

b Yes, sir. Thank you. ___

c Okay, sir. I'm used to it now. I'm listening to you. ___

d Good night, sir. Have a safe voyage. ___

e Okay sir. I am ready. ___

f You, too. Welcome cadet. Did you rest well? ___

g There is no ship traffic and the weather is fine right now. There may be some traffic and the winds may rise within 1 or 2 hours. Read the master's night order book for the watch. We must keep our watch carefully. ___



HAND IN YOUR DOCUMENTS

I. LEAD IN

All seafarers should learn about the required certificates, procedures about embarking, disembarking and filling out the necessary documents about their duties on board.

- Do you know what documents a seafarer should have to work on board?
- What kind of information do these documents include?

II. VOCABULARY

A **Complete the phrases used in required certificates for officers with the given words.**

Resources	**Chart**	**Boats**	**Fighting**	**Team**
Observation	**Aid**	**Plotting**	**Operator**	**Care**

1 Medical First _____Training Certificate
2 Advanced Fire-_____Training Certificate
3 Medical _____ Training Certificate
4 Radar _____ and Plotting Training Certificate
5 GMDSS General _____ Certificate
6 Proficiency in Fast Rescue _____ Certificate
7 Electronic _____ Display and Information System
8 Bridge _____ Management
9 Engine _____ and Resources Management
10 The Operational Use of Automatic Radar _____ Aids (ARPA) Training Certificate

B **Match the words with their definitions.**

confirmation	**competency**	**sincerely**	**embark**	**submit**
plotting	**expiration**	**fixture**	**hereby**	**register**

1 _____: marking a position or course of a vessel on a map
2 _____: permanently fixed piece of furniture
3 _____: by this statement, action or law
4 _____: an important skill needed for a job
5 _____: the ending time of an official document to be acceptable
6 _____: an official record containing names and information

7 _____: to formally send a document to authorities

8 _____: a common saying used to end a formal letter

9 _____: a written statement that shows something is true or definite

10 _____: to go on a ship

C **Read the embarking order below and complete it with the given phrases.**

- ✳ PORT OF REGISTRY
- ✳ NAME OF THE VESSEL
- ✳ NAME OF THE CREW
- ✳ EXPLANATIONS
- ✳ PERSONNEL MANAGER
- ✳ ~~RANK~~
- ✳ DATE
- ✳ CERTIFICATE OF COMPETENCY
- ✳ DATE AND PLACE OF BIRTH
- ✳ SEAMAN'S BOOK NUMBER

1 _____ :20/06/2021

EMBARKING ORDER

2 _____: M/V YILDIRIM 5

3 _____: MUSTAFA AKAYDIN

4 _____: ORDINARY SEAMAN

5 _____: 10.07.1998 İZMİR

6 _____: ORDINARY SEAMAN

7 _____: İSTANBUL

NUMBER OF REGISTRY : EY-110

8 _____: 194637

9 _____ : The seafarer will embark the ship at Rotterdam on 20.06.2021

EMBARKED CREW

MUSTAFA AKAYDIN

10 _____

AHMET DEMİR

SIGNATURE

MASTER'S CONFIRMATION ABOUT EMBARKED CREW :

NOTE: THIS FORM IS PREPARED IN 3 COPIES. TWO COPIES WILL BE SENT TO THE VESSEL WITH CREW. AFTER THE CONFIRMATION BY MASTER ONE COPY WILL BE SENT BACK TO COMPANY.

III. READING

Read the letters below and fill in the blanks with the given words.

expenses	**cabin**	**order**	**role**	**embark**
register	**cash**	**port**	**saving**	**assigned**

EMBARKATION ORDER

DEAR: Mustafa AKAYDIN _____ 1 **NO: 1122334412**

You have been _____ 2 as the Ordinary Seaman to the M/V YILDIRIM 5
You are requested to _____ 3 your ship at Rotterdam _____ 4 and start your duty on board by taking over all related equipment, machinery, devices and documents from Sinan DENİZ. Wishing you the very best in your assignment.

Embarking at Rotterdam Port **PERSONNEL MANAGER**

From the reserve : (X)
From the leave : ( )
From promotion : ( )
From ship-to-ship : ( )
Embarkation date : 20/06/2021

Master cash advance (To be delivered to the master) : **($ ..... is given)**
Travel _____ 5 advance : **($ 1000,00 is given)**

TO THE PERSONNEL MANAGER

I hereby submit for your information that, Mustafa AKAYDIN, the identified crew in the embarkation _____ 6 above has started his duty on board by taking over his _____ 7 key, life-_____ 8 equipment, his cabin's fixtures and _____ 9 card.

Sincerely
Embarkation Port: Rotterdam
Embarkation Date and Hour: 20/06/2021 - 13:00 hours

MASTER of M/V YILDIRIM 5

Note: $ ____**1000,00**___ is given to the crew from the ship's _____ 10 register for his travel expenses and the invoice is attached to this letter.

IV. WRITING

A **Study the application to leave below and match the phrases with the parts of the application.**

To the master of M/V YILDIRIM 5 **1**

I have been working as the ordinary seaman on M/V YILDIRIM 5 since June 6, 2021. My contract ends on the December 1, 2021. I would like to take a leave at the first available port upon the expiration of my contract. **2**
Sincerely. **3**

Ordinary Seaman **4**
Mustafa AKAYDIN **5**
10/11/2021 **6**

a the ending ____
b the date ____
c the rank ____
d the receiver ____
e the sender ____
f the reason ____

B **Put the sentences below in order and write an application to leave. Add the necessary information according to the sample in Exercise A.**

a Thanks for your concern.
b I request to take a leave from May 10, 2022 to May 25, 2022 for this occasion.
c I would like to inform you that I am getting married on May 18, 2022, in İzmir.
d My contract ends on July 15, 2022.
e I have been working on M/V YILDIRIM 5 as the able seafarer since January 15, 2022.

1C LIFE ON BOARD

PROJECT

Work in groups and prepare a presentation about working on board. Visit a ship, interview with the crew members; ask questions about their jobs. Take photos or video if you are allowed to for your presentation.

SELF ASSESSMENT 1

I can recognise the terms about vessels and vessel types.			
I know the crew members and their duties.			
I can understand and take part in some conversations that I will need while working on board.			
I can recognise the documents and certificates necessary for seafarers.			
I can fill in the required forms for working on board.			

REVISION 1

A **Complete the chart to make collocations.**

discharge, box, carrier, tank, ~~operations~~, explosive, dry, bulky, liquid, transport, load, carry, holds, stow, perishable

VERB

1 _____
2 _____
3 _____
4 _____
5 _____

cargo

NOUN

cargo

6 *operations*
7 _____
8 _____
9 _____
10 _____

ADJECTIVE

11 _____
12 _____
13 _____
14 _____
15 _____

cargo

B Choose the correct option.

1 _____ are used to widen and deepen the seabed.

a Tugs **b** OSVs **c** Dredgers **d** Icebreakers

2 _____ is steering a vessel through its route.

a Manoeuvring **b** Escorting **c** Deepening **d** Widening

3 The cargo is placed on the ship according to the _____ plan.

a discharging **b** loading **c** stowage **d** storing

4 _____ precautions are very important both on commercial and passenger ships.

a Pollution **b** Safety **c** Operation **d** Emergency

5 Temperature control is very important for the perishable cargo on _____.

a livestock carriers **b** bulk carriers **c** gas tankers **d** reefers

6 _____ have lots of baited hooks on long fishing lines to catch fish.

a Trawlers **b** Gillnetters **c** Longliners **d** Seiners

7 _____ is basically cleaning something deeply.

a Preventing **b** Sanitising **c** Discharging **d** Draining

8 _____ is the price you pay for transportation.

a Schedule **b** Destination **c** Passage **d** Fare

9 _____ carry dangerous cargo.

a Chemical tankers **b** Container ships **c** Livestock carriers **d** Bulk carriers

10 _____ are usually used to tow vessels in need.

a Tugs **b** Icebreakers **c** OSVs **d** Dredgers

1C LIFE ON BOARD

C Circle the odd one.

1	gillnetter	trawler	seiner	tanker
2	able seaman	ordinary seaman	oiler	boatswain
3	technical	deck	engine	catering
4	tug	cruise	dredger	cable layer
5	seaman's book	passport	letter	certificate
6	oversee	command	manage	maintain
7	cadet	rank	fitter	steward
8	cook	engineer	donkeyman	oiler

D Who is this?

1 _____ is responsible for everything and everybody on board.
2 _____ is the head of the engine ratings.
3 _____ is responsible for the meals.
4 _____ is the head of the deck department.
5 _____ is in charge of the deck ratings.
6 _____ is the head of the engine department.

E Find 15 words or phrases related to working on board.

1 _____
2 _____
3 _____
4 _____
5 _____
6 _____
7 _____
8 _____
9 _____
10 _____
11 _____
12 _____
13 _____
14 _____
15 _____

D	L	H	F	Y	E	W	M	Y	F	U	S	J	K	N
N	A	U	I	F	C	U	E	I	G	A	T	N	E	O
D	V	E	G	K	V	N	R	R	P	T	A	I	Y	I
O	I	X	I	Z	Q	S	E	P	C	R	J	W	H	T
C	V	K	A	K	T	Z	L	T	F	D	B	X	P	A
U	R	C	G	A	M	I	W	X	E	V	G	V	K	K
M	U	B	I	T	C	P	A	S	S	P	O	R	T	R
E	S	D	F	A	O	Y	B	V	L	C	M	R	A	A
N	O	I	T	A	U	D	A	R	G	Q	G	O	G	B
T	W	I	E	T	A	C	I	F	I	T	R	E	C	M
D	O	N	I	O	E	Q	U	I	P	M	E	N	T	E
N	R	E	S	C	U	E	B	O	A	T	H	I	J	O
L	Y	X	K	Z	X	J	C	M	Z	J	Y	B	Z	C
O	W	L	Z	L	H	F	N	X	Q	B	E	A	G	Y
Y	R	E	N	I	H	C	A	M	X	U	M	C	V	N



UNIT 2

VESSEL STRUCTURE

http://kitap.eba.gov.tr/KodSor.php?KOD=28484

- Get familiar with the main parts of a vessel
- Learn the direction terms used on board
- Recognise main compartments that the crew work and rest
- Get familiar with the main fittings and equipment with different functions
- Learn the measurement of dimensions and tonnage values of a ship
- Practice sample conversations describing the locations and positions of things on and around a ship

2A GET TO KNOW YOUR SHIP

I. LEAD IN

The main structure of a ship consists of **the hull** and **the machinery**. The hull is the main body of the ship. It consists of various structural elements. The machinery includes all devices and equipment that help the ship move.

A ship can roughly be divided into **seven parts**, and there are many **compartments** located on these parts. We can use the names of these parts or compartments when we talk about the location of something on a ship. The **direction terms** also help us to say the exact directions or position of something around our ship.

e.g., *The propeller is at* ***the stern****.*
The bridge is on ***the accommodation****.*
M/V BLUEBIRD is ***ahead*** *of us.*

- What type of a cargo ship do you see in the picture below?
- Can you name any parts, compartments, fittings or equipment on it?
- Do you know how to tell the direction of the things around your ship?



LEARN THIS !

- When we talk about our vessel, we say **Motor Vessel**, and we use the abbreviation **M/V**
  e.g., *M/V BLUEBIRD.*
- We also use the pronouns **she** or **her** when we talk about a certain ship.
  e.g., *Steady as* ***she*** *goes.*

II. READING AND VOCABULARY

A Match the words with the photos.

1 lighthouse ___ | 2 nautical chart ___ | 3 wreck ___ | 4 buoy ___



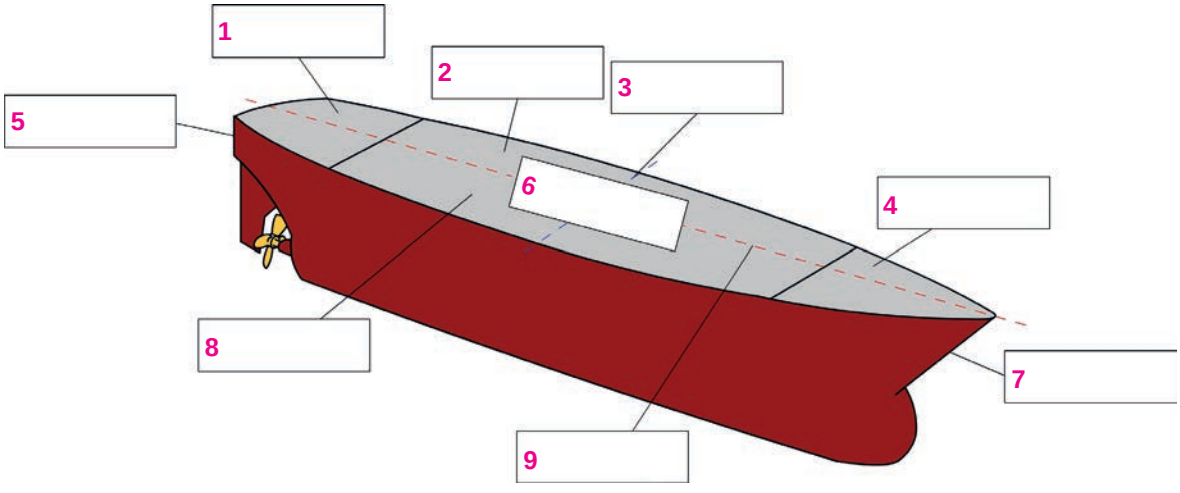






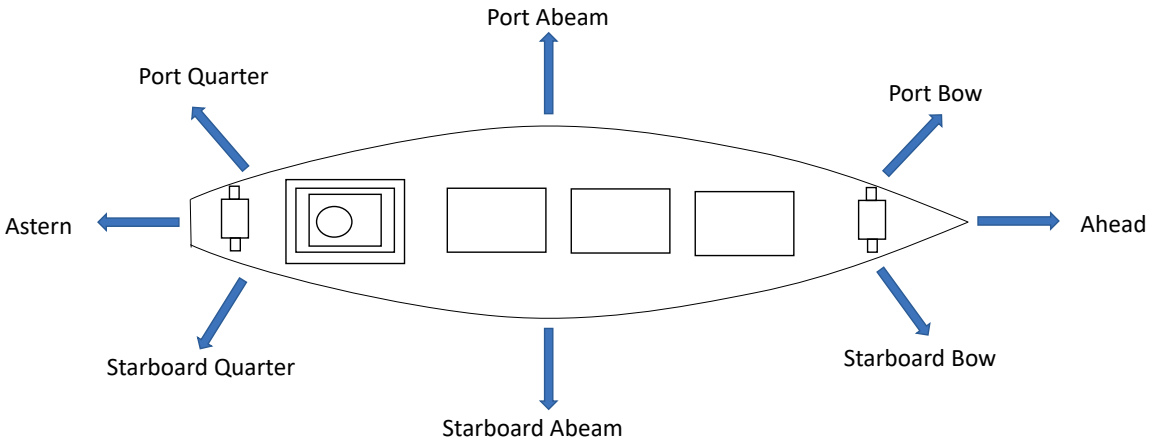
B Read the definitions for the main parts of a ship, and write them in the correct box on the picture below.

- The front part of a ship is **forepart**.
- The back part of a ship is **after part**.
- The middle part of a ship is **amidships**.
- The widest part of a ship is **beam**.
- An imaginary line dividing a ship into two equal parts longitudinally is the **centre line**.
- Right-hand side of a ship when you face forward is **starboard**.
- Left-hand side of a ship when you face forward is **port**.
- The back end of a ship is **stern**.
- The front end of a ship is **bow**.



2A GET TO KNOW YOUR SHIP

C **Read the information about the directions of a ship on the picture and complete the table below.**



When the direction is …	We say …
towards a ship's bow …	1
towards the left side of a ship …	2
towards the right-front of a ship …	3
towards a ship's stern …	4
towards the left-front of a ship …	5
towards the right-back of a ship …	6
towards the right side of a ship …	7
towards the left-back of a ship …	8

III. LISTENING

Listen and complete the sentences with the words you hear.

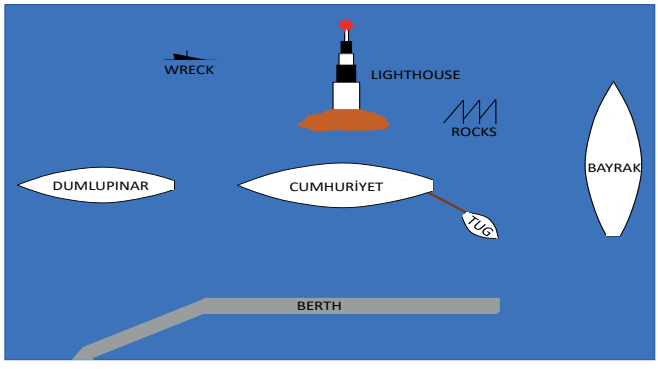
http://kitap.eba.gov.tr/KodSor.php?KOD=37980

1 Be careful! There are uncharted rocks _____ of you.
2 Keep clear of the wreck on your _____.
3 The tug is towing M/V BLUELINE 7 towards the _____.
4 There is a buoy on your _____.
5 A tanker is passing _____ of the container ship.
6 I see a fishing boat on our _____.
7 Look! There is a whale on _____.
8 We can see Cape of Good Hope is on our _____ now.

IV. WRITING AND SPEAKING

A **Look at the picture and make sentences as in the example.**

e.g.*, *There is an empty berth on port abeam of M/V CUMHURİYET.



B **Write the direction terms according to the picture in Exercise A to complete the sentences below.**

1 M/V DUMLUPINAR is a nautical mile (nm) _____ of M/V CUMHURİYET.
2 We can see a/an _____ on port abeam of M/V CUMHURİYET.
3 M/V BAYRAK is passing _____ of M/V CUMHURİYET.
4 The tug is towing M/V CUMHURİYET to _____.
5 There are rocks on the starboard quarter of _____.
6 There is a/an _____ on starboard bow of M/V CUMHURİYET.
7 The lighthouse is on _____ of M/V CUMHURİYET.
8 The wreck is on starboard quarter of _____.

V. READING AND WRITING

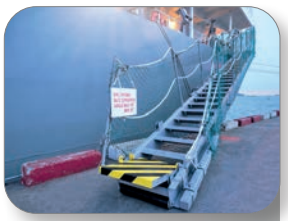
A **Read the sentences about the compartments on a ship and complete the sentences below.**

Decks are open spaces on a ship.
Gangway is a walkway or a raised platform on the side of a ship.
Bridge room is the commanding room of a ship.
Engine room involves the main engine and auxiliary machinery.
Accommodation holds the living spaces in it.

1 You can embark or disembark a ship using the _____.
2 The ship is propelled from the _____.
3 The crew sleep, eat and rest in the _____.
4 The navigation is controlled from the _____.
5 The crew walk on the _____ to go from one place to another.

2A GET TO KNOW YOUR SHIP

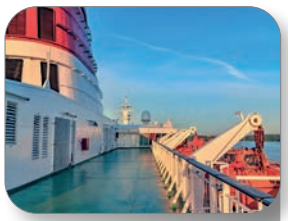
B **Write the names of the compartments from Exercise A on Page 59 under the photos.**



1 _____



2 _____



3 _____



4 _____



5 _____

C **Write names of the rooms in the accommodation of a ship under their photos.**

galley | laundry room | hospital | mess room | cabin | provision store



1 _____



2 _____



3 _____





4 _____

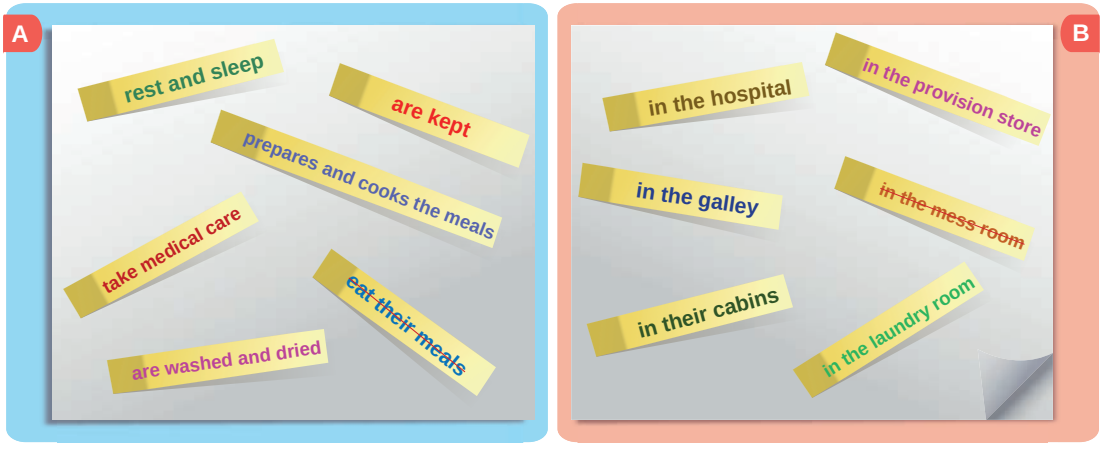


5 _____



6 _____

D **Work in pairs. Complete the sentences writing the phrases from the boxes.**



1 The crew ***eat their meals in the mess room*** .
2 The cook _____.
3 Injured or ill crew members _____.
4 All crew members _____.
5 Food and beverages _____.
6 Clothes, towels and sheets _____.

VI. LISTENING AND SPEAKING

Listen to the phone conversation between the chief officer and the bosun of a ship and complete the missing parts. Then, role-play it with your partner.

http://kitap.eba.gov.tr/KodSor.php?KOD=37981

Chief Officer: Good afternoon, bosun. Do you know where the _____ **1** is?
Bosun: Good afternoon, chief. He is on the lifeboat deck, maintaining the_____ **2**.
Chief Officer: Have you assigned the duties of the crew?
Bosun: Yes, sir. Everyone is at work. A/B Dixon is repairing the _____ **3** and O/S Mitchell is assisting him.
Chief Officer: What about A/B Martin?
Bosun: He is on the _____ **4**. He is stowing the _____ **5**. O/S Karim is washing the cargo tanks at the_____ **6.**
Chief Officer: Good. Where is the_____ **7**?
Bosun: He is_____ **8**. He is assisting the_____ **9**.
Chief Officer: Very well. And what are you going to do?
Bosun: I am at the_____ **10**. I'm checking the watertight doors.
Chief Officer: Have a nice working day, bosun.
Bosun: Thank you, chief.

2B SCRUCTURAL COMPONENTS

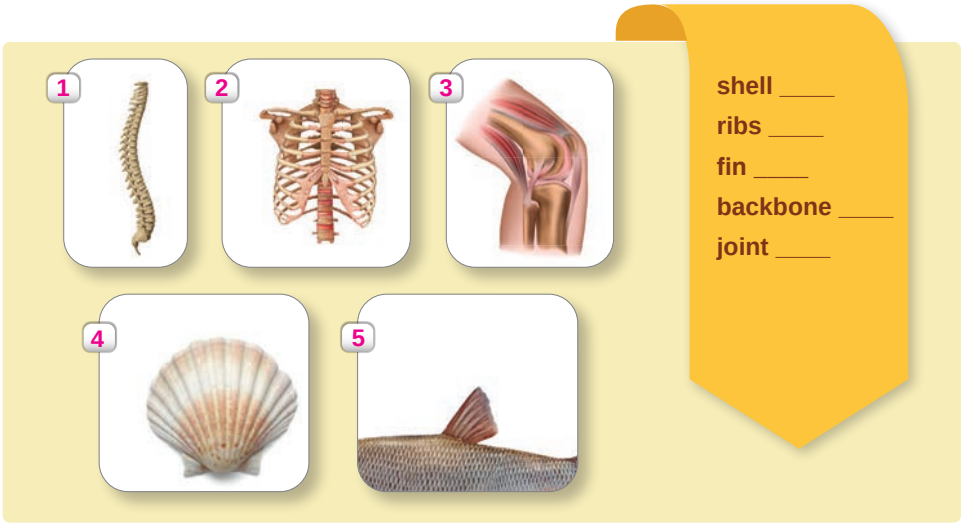
I. LEAD IN

The hull is the body of a vessel and it consists of various structural components. If we think the hull of a ship as a human body, we can say that it has a skeleton with a backbone and ribs, it has joints connecting these bones together, and it has a skin protecting the body against the damaging effects of sea and bad weather.

- Have you ever been to a shipyard and seen the building process of a ship? If yes, what was it like?
- Can you name any structural components of a ship?

II. VOCABULARY

A Match the words with the photos.



shell ____
ribs ____
fin ____
backbone ____
joint ____

B Match the words with their antonyms.

1	longitudinal _____	a	outlet
2	external _____	b	inner
3	outer ____	c	fall
4	reduce _____	d	athwart
5	inlet _____	e	increase
6	rise _____	f	internal

LEARN THIS !

Except for the movements of a vessel by its own propulsion, there are also some external forces like waves, wind and current affecting a vessel's movement. We call these movements **vessel motions**. It is important to know how to control the movement of the vessel during these motions to navigate safely. There are **6** basic motions of a vessel: **surging, swaying, yawing, heaving, rolling** and **pitching.**

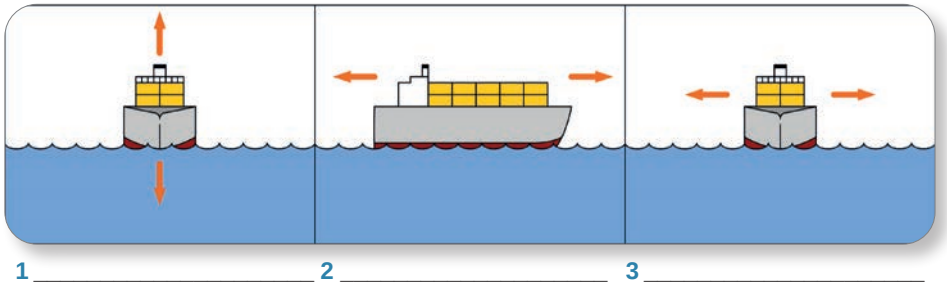
C Work in pairs. Write the required forms of the words below.

1 watertightness (noun) _____ **(adj.)**
2 strengthen (verb) _____ **(noun)**
3 extension (noun) _____ **(verb)**
4 collide (verb) _____ **(noun)**
5 effect (noun) _____ **(verb)**
6 attach (verb) _____ **(adj.)**

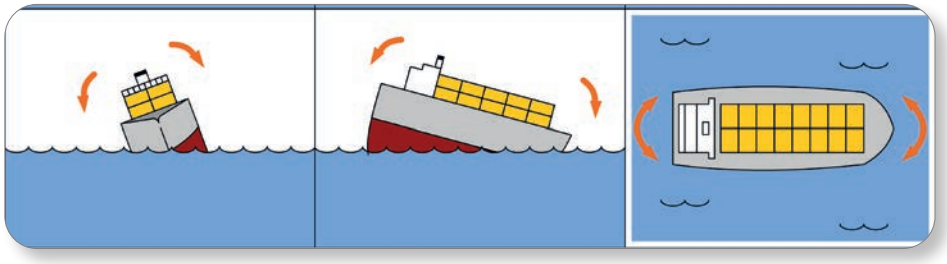
D Re-order the letters to find out the words about vessel motions defined below.

1 rising and falling motion of the bow or stern of the ship:
_____ **p – h – c – i – t – n – i – g**
2 rising and falling motion of the starboard and port sides of the ship:
_____ **o – l – r – l – n – g – i**
3 rotating motion of a ship, spinning around herself
_____ **w – y – a – n – g – i**
4 up and down motion of a ship vertically, rising into the air, and diving into the water:
_____ **e – a – h – w – n – i – g**
5 sliding motion of a ship towards the sideways, the starboard or the port:
_____ **y – s – w – i – n – a – g**
6 sliding motion towards the front or the back, astern or ahead of a ship:
_____ **u – s – r – g – n – i – g**

E Write the words in Exercise D under the correct pictures below.



1 _____ **2** _____ **3** _____



4 _____ **5** _____ **6** _____

III. LISTENING AND READING

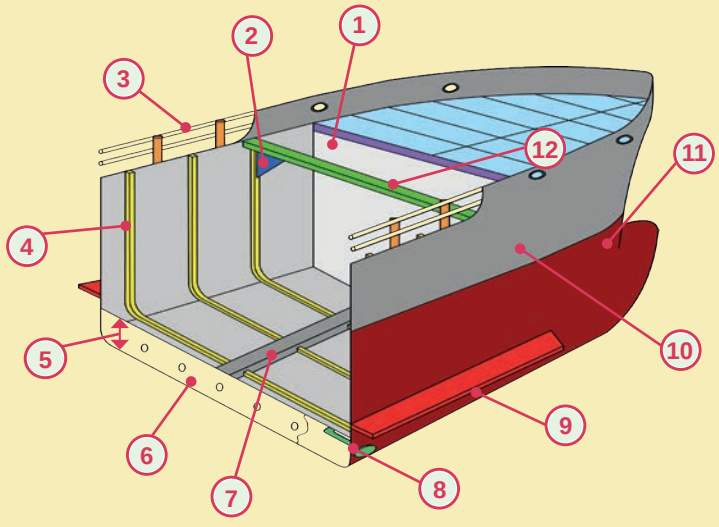
A **Read and listen to the text about the structural components of a ship and complete it with the given words.**

http://kitap.eba.gov.tr/KodSor.php?KOD=37982

prevent	connect	reduces	consists	strengthen	are	support
protect	cross	provide	has	extends	encloses	increases

- The **keel** _____ **1** from the bow to the stern along the hull. It is the backbone of the vessel. It supports the hull and holds all other things forming the skeleton.
- **Frames** _____ **2** the keel like ribs in human body. They are transverse supporting components of a vessel. They support the hull together with the keel.
- **Beams** are attached to the top ends of frames. They _____ **3** the hull against the pressure of the water from the sides.
- **Brackets** are metal joints. They _____ **4** frames and beams.
- **Bulkheads** are watertight walls. They _____ **5** isolated sections to protect the cargo from external effects and damage.
- The **shell plating** is the outer skin of a vessel usually made of steel. It _____ **6** the hull and protects it from external effects like a shell.
- The **bulbous bow** is a bulb-like extension at the vessel's bow. It _____ **7** pitching and protects the vessel's bow when there is a collision.
- **Bulwarks** form the sidewalls and rails around the decks. They _____ **8** seawater entry and protect the crew or passengers against falling from the deck.
- The **double bottom** _____ **9** of two watertight layers leaving a space between the inner bottom and shell plating. It prevents cargo holds and the engine room from flooding when there is a bottom damage. It also _____ **10** the longitudinal strength of the vessel.
- **Floors** are plates at the bottom with holes. They _____ **11** the ship to hold the weight of the cargo, the machinery, and the tanks. They also _____ **12** the ship against crashes.
- The **sea chest** is a box attached to the inside bottom of the shell. It_____**13** inlet valves and strainers to take seawater for various purposes such as ballast, cooling, or fire-fighting etc.
- **Bilge keels** _____ **14** fin-like plates mounted at two sides of the vessel. They reduce rolling.

B **Read and listen to the text in Exercise A on Page 64 again, and write the correct numbers next to the words to match them with their place on the picture below.**



Bulwark ___
Beam ___
Frame ___
Keel ___
Double bottom ___
Floor ___
Sea chest ___
Bilge keel ___
Bulbous bow ___
Shell plating ___
Bulkhead ___
Bracket ___

IV. WRITING AND SPEAKING

A **Work in groups. Complete the table using the information from the text on Page 64.**

STRUCTURAL COMPONENT	FUNCTION
1 _____	Protecting people against the risk of falling into the water
2 _____	Supporting the hull against the pressure of the water from sides
Frames	3 _____
Bilge keel	4 _____
5 _____	Attaching beams and frames to each other
6 _____	Forming watertight sections
Shell plating	7 _____
Bulbous bow	8 _____
9 _____	Strengthening the hull as the backbone of the ship
Sea chest	10 _____
11 _____	Strengthening the bottom of the ship to help her carry all the load
Double bottom	12 _____

B Write the sentences in the correct place to complete the conversation on daily maintenance work between C/O and the bosun of a ship.

- let's check up on today's work plan
- have also planned to wash
- also need repairing
- maintaining sea chest valves
- when he finishes his work
- let's get to work

C/O : Good morning, bosun. _____ **1** once more.
Bosun : Good morning chief! Okay. I am ready.
C/O : We're going to paint the shell plating at the board. Assign A/B Martin and O/S Karim to do that, and we're going to scrape the fore bulkhead of cargo hold #1.
Bosun : OK. I' ll get O/S Mitchell to do that. We _____ **2** the cargo hold #2. I'll send A/B Dixon and O/S Tekin on that work.
C/O : Good. The areas between the frames must be cleaned well.
Bosun : Alright, chief. I'll tell them to do so. Some of the bulwark stanchions are broken at the starboard. They _____ **3**.
C/O : You are right. The fitter is _____ **4** with the oilers at the moment. I'll talk to 2/E, and ask him to send the fitter _____ **5**, there.
Bosun : Okay chief. And I am going to check the broken brackets of frames and beams at cargo hold #1.
C/O : Fine. Then, _____ **6**! Have a nice working day.
Bosun : Thank you, chief, you too.

C Practice the conversation changing the roles with your partner.

D Read the conversation in Exercise B again, and write what the following people are going to do.

1 The fitter _____.
2 A/B Dixon _____.
3 O/S Mitchell _____.
4 The bosun _____.
5 O/S Karim _____.
6 A/B Martin _____.
7 O/S Tekin _____.

E Write the names of the structural components mentioned in the conversation in Exercise B.

1 _____
2 _____
3 _____
4 _____
5 _____
6 _____
7 _____

2C WHAT ARE THERE ON BOARD?

I. LEAD IN

There are a lot of spaces, rooms, fittings and equipment on a ship. Each one has a different function.

- What basic fittings and equipment do you remember on a ship?
- Can you name any steering, mooring or cargo equipment that most cargo ships use?

II. LANGUAGE

Prepositions of place

We use prepositions of place to tell where the people or things are. The most commonly used prepositions are:

- **at**
- **in**
- **on**
- **under**
- **next to/beside**
- **between … and …**
- **in front of**
- **behind**
- **below**
- **above/over**
- **near**

Read the sentences and match them with the photos.

1 The life jackets are hanged **on** the wall. _____
2 The officers are **in** the bridge room. _____
3 The passengers are waiting for the ferry **at** the port. _____
4 The cruise ship is **under** the bridge. _____
5 A flock of seagulls are flying **over** the fishing boat. _____
6 The container ship is **near** the berth. _____
7 The funnel is **next to** the accommodation. _____
8 The yacht is sailing **between** two icebergs. _____
9 The O/S is **behind** me. He is pulling the rope. _____
10 The tugboat is **in front of** the cargo ship. _____
11 The crown of the anchor is now **below** the waterline. _____

A



B



C

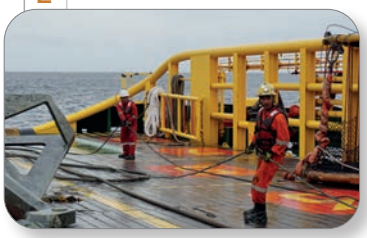


2C WHAT ARE THERE ON BOARD?

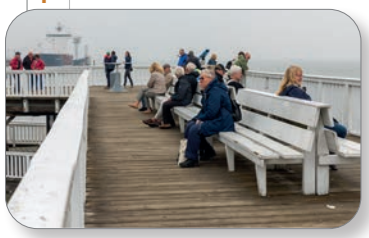
D



E



F



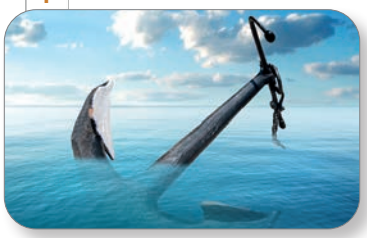
G



H



I



J



K



III. VOCABULARY

A **The following verbs are often encountered in maritime sources. Work in pairs and match them with their definition.**

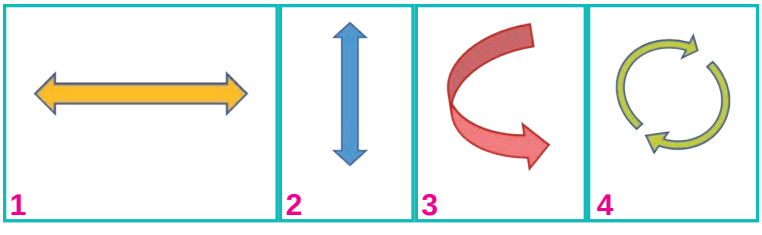
1	steer___	a	to send out something from somewhere, unload
2	manoeuvre___	b	to move in a circular axis
3	anchor___	c	to twist something around a cylindrical object
4	moor___	d	to fix a vessel to sea bottom with an anchor
5	discharge___	e	to tie a ship or a boat somewhere like a pier by a rope
6	transmit___	f	to turn or direct a vessel to another route
7	rotate___	g	to control the movement of a vessel
8	wind___	h	to lift or pull up a heavy object
9	heave up ____	i	to cause something pass from one place to another, send

B Complete the sentences with the words in Exercise A on Page 68.

1 It is difficult to_____ at narrow straits for large ships; so, a tugboat usually assists them.
2 Cables _____ electrical power from the source to the devices so that they can run.
3 Bulk carriers use cranes and spouts to _____ their cargo.
4 _____ the anchor! We are setting off.
5 We are going to _____ at the Ro-Ro pier. Stand by for letting go the port anchor.
6 M/V BLUEBIRD, please _____ to the pilot station.
7 The cruise ship will _____ at the passenger terminal to disembark the passengers.
8 We must _____ these ropes on the coil soon. They look untidy here.
9 The compass needle seems to _____ continuously. I can't read the direction well here.

C Match the words with the figures.

vertical ____ **rotating ____** **horizontal ____** **curved ____**



D Complete the missing letters and write the defined words below.

1	a long connecting rod	sh __ __ t
2	a large mechanical equipment or a part of a machine	g __ __ r
3	the state of begin fixed or balanced	st __ b __ l __ty
4	a physical harm to a vessel or an equipment	d __ m __ g __
5	assisting or supporting	a __ x __li __ ry
6	not allowing water flow	w __ t __ __t __ gh __ n __ss

2C WHAT ARE THERE ON BOARD?

E **Read the sentences about the spaces and rooms on a ship and complete the phrases using the given words.**

dry	navigating	fore	water	auxiliary	flat	spaces	fresh	after

1 **Decks** are _____ spaces between the compartments. There are several decks on a ship. **Forecastle** deck is at the forepart; **poop deck** is at the _____ part. Other decks are named according to their function and they are at various locations on a ship.

2 **Ballast tanks** contain sea _____ that is used to maintain the stability. They are at the bottom of the ship, under the cargo holds.

3 **Cargo holds** are designed for carrying _____ cargo. They are between forepart and after part, at the amidships.

4 **Aft peak tank** contains _____ water for domestic use. It is near the stern of the ship.

5 **Bridge room** is the _____ and commanding room of the ship. It is above the accommodation.

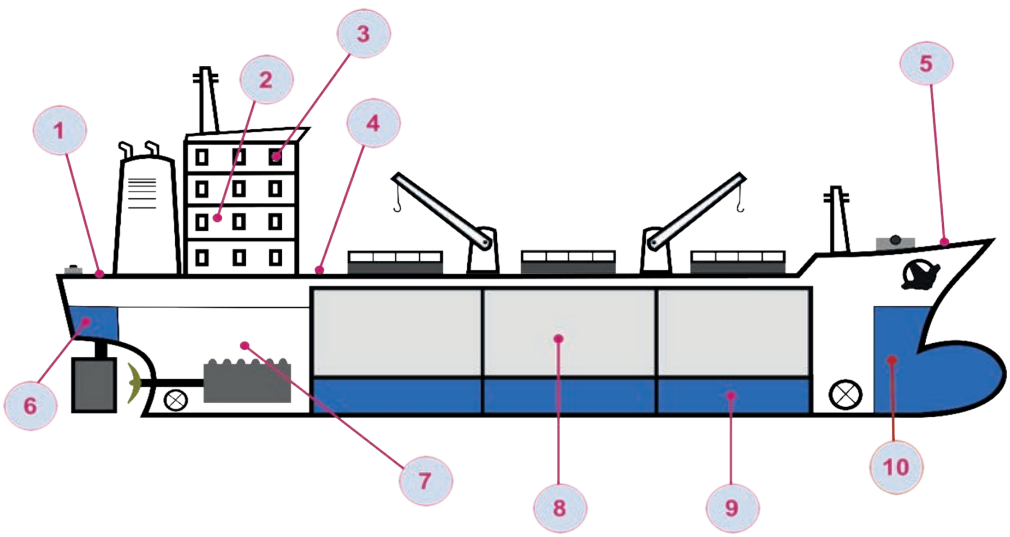
6 **Engine room** holds the main engine and the _____ machinery. It is at the after part of the ship, usually below the accommodation.

7 **Accommodation** has living _____ for the crew and passengers. It is at the after part of the ship.

8 **Fore peak tank** contains sea water to control _____ and aft stability. It is at the bow of the ship.

F **You see a standard general cargo ship in the picture below. Some spaces and rooms are shown with numbers. Match the numbers with the names of these spaces and rooms using the information in Exercise E.**

____ accommodation	____ aft peak tank	____ poop deck
9 ballast tank	____ engine room	____ bridge room
____ deck	____ cargo hold	
____ forecastle deck	____ fore peak tank	



IV. LISTENING AND READING

A **Listen to the recordings, and complete the paragraphs with the names of the basic fittings and equipment of a cargo ship below.**

http://kitap.eba.gov.tr/KodSor.php?KOD=37983

hatch covers	head mast	anchor	funnel	windlass
stern thrusters	propeller	rudder	capstan	cranes

A The _____ 1 has curved, rotating shafts that transmit the power of the engine. It helps the ship move using this power. It is at the stern, close to the rudder.

B The_____ 2 is like a chimney on the ship. It is at the after part, next to the accommodation. It is used to discharge exhaust gasses coming from the engines and generators.

C The_____ 3 is a horizontal cylinder rotated by a mechanical power to let the anchor cable or the mooring line wind around it. It can be at the forecastle or at the poop deck. It is used for heaving up or letting go the anchor.

D The _____ 4 is a vertical cylinder rotated by a mechanical power. It has the similar function with the windlass. It is usually at the poop deck.

E _____ 5 are large gears on cargo carriers. They help loading and discharging cargo.

F The _____ 6 is a heavy object tied by the anchor chain, hanging from the **hawse pipe**. It is usually at the bow of the ship. It is used to moor the vessel to the sea bottom and hold it still.

G _____ 7 cover the cargo holds of a ship. They are designed to protect the cargo from external damage. **Hatch coamings** are like frames between the cargo holds and hatch covers. They provide watertightness.

H The _____ 8 is a vertical device like a blade at the stern of the ship, next to the propeller. It is used to steer and manoeuvre the ship.

I The **bow** and the _____ 9 are like propellers enclosed by a tunnel. They ease moving to starboard and port sides and help manoeuvring. The bow thruster is at the bow and the stern thruster is at the stern.

J **Masts** are vertical posts on decks. They hold navigational lights, flags, radio antennas etc. The **main mast** is at the after part of the ship, on the bridge, and the _____ 10 is on the forecastle deck.

B **Read and listen to the paragraphs again, and write "M/A" for mooring or anchoring equipment, "C" for cargo equipment, "F" for fixed fittings and "S/P" for steering and propulsion equipment in Exercise A.**

2C WHAT ARE THERE ON BOARD?

C **Listen to the conversation below and write the missing words and phrases for the spaces and equipment on a cargo ship. Then role-play it with your partner.**

http://kitap.eba.gov.tr/KodSor.php?KOD=37984

C/O : Second Mate! Please be careful with the _____ **1** during your watch. The operators are not working carefully. We don't want them to harm the _____ **2** or the _____ **3**.

2/O : Alright chief. I'll contact the foreman if necessary.

C/O : A/B should also be warned to sound the _____ **4** properly during the ballast operation.

2/O : Roger that, sir. Thank you for the update. Good night!

C/O : Have a good watch!

2/O : Hey A/B Stuart! Please sound the ballast tanks very carefully. Also, go and check the mooring lines at the forecastle deck and the _____ **5** in every half hour. There is a strong tide in this port. Use the _____ **6** when necessary.

A/B Stuart: All right, sir.

V. WRITING AND SPEAKING

A **Write the names of the fittings or equipment in the photos below using the information that you have learned within the activities on Page 71.**



B **Work in groups of four. Choose a group member to think of a room, fitting or an equipment on the ship. Other group members try to find out what it is by asking questions as in the example. Each group member should practice it more than once in turns.**



Student A: OK. I am ready.
Student B: Where is it?
Student A: It can be at the poop or the forecastle deck of the ship.
Student C: What is it like?
Student A: It is like a cylinder. You wind a cable or a line around it.
Student D: What is it used for?
Student A: It is used for lowering down or pulling up the anchor.
Student B: It's the windlass.
Student A: That's true.

C **Complete the table below writing your answers in Exercise B.**

The name of the fitting/equipment	Where is it?	What is it like?	What is it used for?
windlass	*at the forecastle or poop deck*	*a kind of horizontal cylinder*	*lowering down or pulling up the anchor*

2D LET'S MEASURE OUR SHIP

I. LEAD IN

A ship is measured on several basis. These measurements are very important for determining maximum cargo capacity and berthing costs, manoeuvring in shallow waters and narrow canals, passing under the bridges, docking operations, or maintaining stability.

- What features of a ship do you think can be measured?

II. VOCABULARY

A Work in pairs. Write the required forms of the words below.

1	high (adj.)	_____	**(noun)**
2	width (noun)	_____	**(adj.)**
3	long (adj.)	_____	**(noun)**
4	depth (noun)	_____	**(adj.)**
5	measurement (noun)	_____	**(verb)**
6	displacement (noun)	_____	**(verb)**
7	distance (noun)	_____	**(adj.)**
8	permit (verb)	_____	**(noun)**
9	buoyancy (noun)	_____	**(adj.)**
10	determine (verb)	_____	**(adj.)**

B Work in pairs. Match the words with their definitions.

shallow ___	**dimensions ___**	**perpendiculars ___**	**docking ___**	**distance ___**
tonnage ___	**determine ___**	**displacement ___**	**permit ___**	**buoyancy ___**

1 a measurement that shows the carrying capacity of a vessel
2 the ability to float on water
3 the measurement of length, width and height of something
4 to allow
5 a measurement that shows how far something/somewhere is from another
6 to come to a decision about something
7 not deep
8 mooring a ship to a particular place to maintain it
9 imaginary posts at the forepart and the afterpart of a ship showing the total volume of cargo spaces
10 the weight of the water that a ship displaces when seated in the water

III. LISTENING AND SPEAKING

A **Listen to the recordings and fill in the blanks with a word. First letters are given.**

http://kitap.eba.gov.tr/KodSor.php?KOD=37985

WHAT WE MEASURE ON A SHIP?

Before a ship starts her navigation, several things are measured for various purposes. Measuring the **d**_____ 1 and the **h**_____ 2 of a ship is necessary for having an idea about her **b**_____ 3 and stability with maximum **p**_____ 4 load. These **v**_____ 5 are also important for a safer voyage on **s**_____ 6 waters, and passing under **b**_____ 7 safely. The measurement of the **d**_____ 8, including the **l**_____ 9 and the **w**_____ 10 of a ship is also important for the **s**_____ 11, safe manoeuvring in narrow canals, berthing and **d**_____ 12 operations, and determining the cargo capacity. Measuring the **w**_____ 13 and the **v**_____ 14 is also necessary when deciding how much load that she can carry safely.

B **Read the text and listen to the recording again and discuss the following questions in groups.**

1 What do you think the purpose of measuring the lengths of a ship is?
2 In what situations can the measurement of heights and the depth of a ship be useful?
3 Why do you think the weights and the volume of a ship is measured?



2D LET'S MEASURE OUR SHIP

C **Listen to the conversation between a vessel and a Vessel Traffic Service (VTS), and complete the missing information on the table below.**

http://kitap.eba.gov.tr/KodSor.php?KOD=37986

Name of the vessel	_____ 1
Destination port	_____ 2
ETA (Estimated Time of Arrival)	December, 5th at _____ 3 UTC.
LOA	_____ 4 m.
_____ 5	14,5 m.
LBP	_____ 6 m.
Maximum _____ 7	12 m.
Loaded Displacement	_____ 8 mt.
Light Displacement	_____ 9 mt.
_____ 10	50. 000 mt.
GT	_____ 11
_____ 12	17.000

D **Listen to the conversation again. Write a similar dialogue using the same questions changing the answers, and role-play it with your partner.**

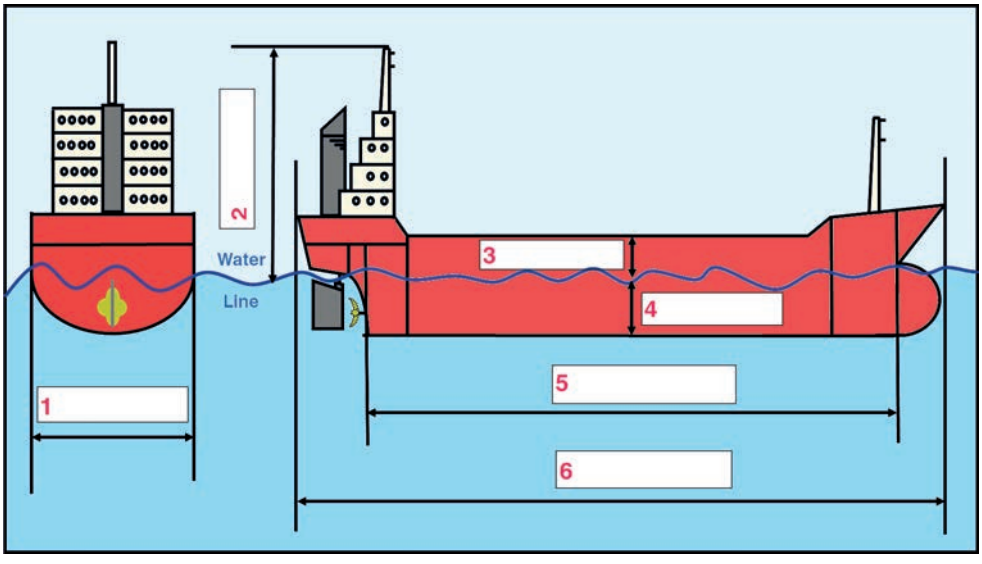
IV. READING AND WRITING

A **Read the definitions of the terms used for the measurement of the dimensions and the depth of a ship, and write them in the correct column in the table below. You can use the abbreviations.**

1 **Length over all (LOA)** shows the distance between the after and fore ends of a ship.
2 **Air draught** is the distance between the water line and the top point of the main mast.
3 **Length between perpendiculars (LBP)** shows the distance between fore and aft perpendiculars.
4 **Freeboard** is the distance between the waterline and the ship's upper deck.
5 **Draught** is the distance from the waterline to the deepest part of the ship's bottom.
6 **Beam** is measured at the widest part of the ship, and it shows how wide the ship is.

Depth	Height	Width	Length

B **Write the measurements you have learned in Exercise A on Page 76 on the picture below.**



C **Read the definitions of the terms used for the measurement of the weight and the volume of a ship, and write them under the correct column on the table below.**

1 **Gross Tonnage (GT)** is the whole internal volume of a ship with her stores, tanks, holds, bridge, acccommodation, etc.

2 **Light Displacement** is the ship's weight with the fuel, lubricating oil, ballast water, provisions without the cargo.

3 **Net Tonnage (NT)** is the volume of a ship used for transporting cargo or passengers; in other words, it is the profit-making volume of a ship.

4 **Deadweight (DWT)** It is the maximum weight a ship can carry with everything loaded, including the cargo and/or passengers.

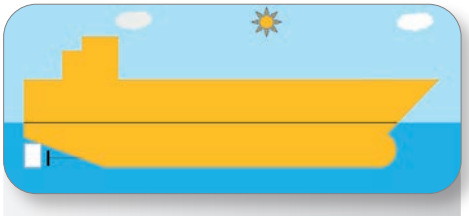
5 **Loaded Displacement** is the ship's weight with everything loaded including fuel, lubricating oil, provisions, ballast water and the cargo and/or passengers.

6 **Light Ship** is a ship's own weight with her basic fittings when she is completely empty.

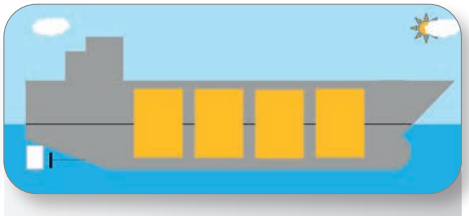
Weight	Volume

2D LET'S MEASURE OUR SHIP

D **You see two pictures for tonnage measurements below. Write the correct terms from Exercise C under the pictures.**



A _____



B _____

E **Write the given measurement units next to the measured features on the table below.**

metre (m) | cubic feet (ft^3) /cubic metre (m^3) | metric ton (mt)

MEASURED FEATURE	MEASUREMENT UNIT
1 weight	
2 width	
3 volume	
4 length	
5 height	
6 depth	

F **Match the measured features with the primary functions of measurement.**

1 LOA and beam ____
2 LBP ____
3 draught and freeboard ____
4 air draught ____
5 tonnage ____
6 displacement ____

a stability calculations and specifying the cargo spaces
b calculating the volume of the spaces and the amount of cargo that can be loaded
c calculating the maximum weight that a ship can carry with or without the cargo
d passing under bridges
e docking, berthing, passing through narrow canals and port entries
f buoyancy and stability calculations, and specifying the amount of the cargo

LEARN THIS !

As you have already learned, draught is the distance between the water line and the lowest point of the keel when the ship is on water. They are measured by the help of draught markers.





Draught markers are scales showing the draught of a ship when it is seated on water at particular situations. They are placed on the shell plating at both sides of the bow, the stern and the amidships. Draught scales can have standard numbers or roman numbers on them.

PROJECT

Visit a shipyard and do research in groups. View the structural components that you have learned in this unit closely, talk to the people working there and observe their work. Take photos and videos if you are allowed to. Prepare a presentation sharing your experiences with your classmates.

SELF ASSESSMENT 2

I can talk about the main parts and compartments of a ship.	☺	😐	☹
I can tell the directions of a ship.	☺	😐	☹
I can talk about the basic structural components used while building a ship.	☺	😐	☹
I can tell the names of basic fittings, equipment, and their function on a ship.	☺	😐	☹
I can talk about what is measured on a ship.	☺	😐	☹
I can understand and take part in the conversations related to ship structure.	☺	😐	☹

REVISION 2

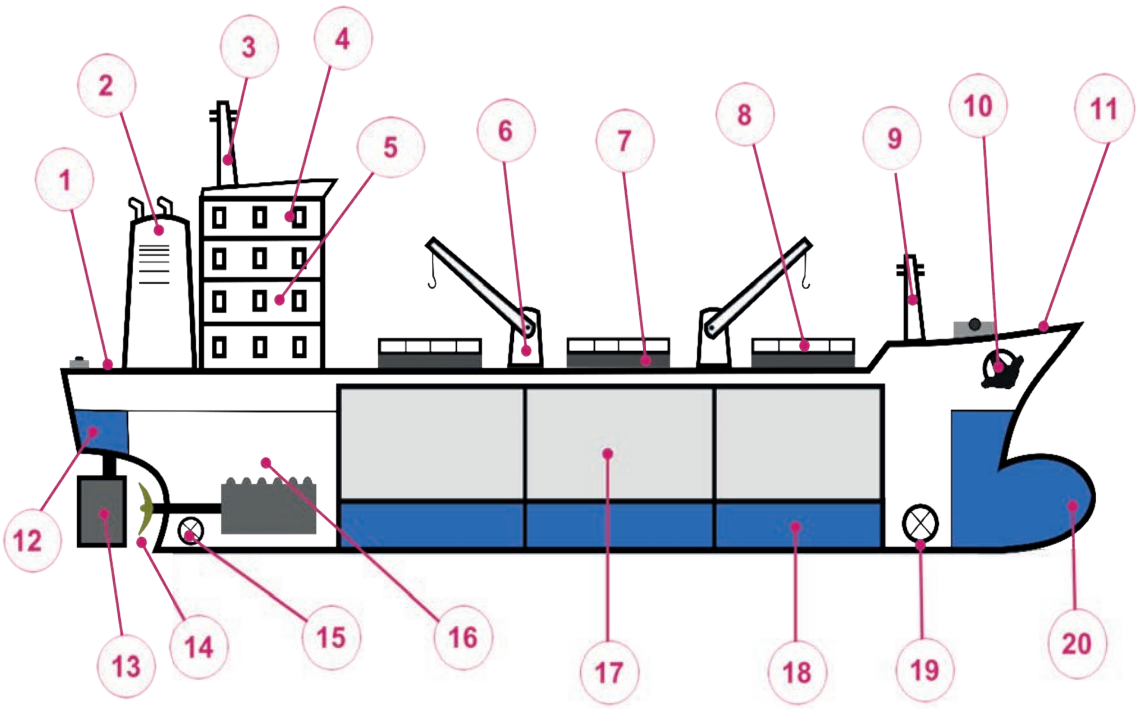
A Circle the odd one.

1	stern	rudder	bow	forepart
2	galley	cabin	messroom	bridge
3	windlass	crane	capstan	anchor
4	deck	keel	frame	beam
5	heaving	rolling	pitching	flooding

2D LET'S MEASURE OUR SHIP

B Write the correct words next to the numbers for ship's structure below.

1 _____	5 _____	9 _____	13 _____	17 _____
2 _____	6 _____	10 _____	14 _____	18 _____
3 _____	7 _____	11 _____	15 _____	19 _____
4 _____	8 _____	12 _____	16 _____	20 _____



C Find 10 hidden words for the structural components of a ship.

B	D	O	O	L	E	L	F	B	T	Y	Q	T	B	P	D	H	N	P	L
I	E	L	H	L	F	R	R	R	A	H	S	A	U	U	T	Z	S	S	Z
L	V	A	Z	R	A	A	D	W	L	E	Z	W	L	U	Y	O	G	C	T
G	J	S	M	M	C	L	O	I	H	K	I	V	K	R	A	W	L	U	B
E	Q	B	E	K	M	R	N	C	O	S	Y	W	H	L	D	G	Q	L	X
K	B	O	E	T	C	S	A	D	O	U	B	L	E	B	O	T	T	O	M
E	W	T	K	F	J	E	D	H	Y	W	P	V	A	X	L	J	F	I	W
E	C	L	A	R	S	L	W	G	Y	W	R	W	D	L	N	X	G	S	O
L	D	O	T	M	S	H	E	L	L	P	L	A	T	I	N	G	X	Q	A
B	U	L	B	O	U	S	B	O	W	E	C	M	Q	S	E	D	F	X	L

D Choose the correct option.

1 The engine room is _____ the accommodation.

a next to **b** behind **c** below **d** on

2 _____ contains sea water to maintain stability of the ship.

a Cargo hold **b** Ballast tank **c** Sea chest **d** Cargo tank

3 _____ is NOT in the accommodation.

a Messroom **b** Galley **c** Hospital **d** Engine room

4 _____ is a mooring equipment.

a Windlass **b** Crane **c** Propeller **d** Rudder

5 _____ is NOT related to cargo.

a Crane **b** Hatch coaming **c** Rudder **d** Hatch cover

6 The _____ is the backbone of the ship.

a double bottom **b** beam **c** bulwark **d** keel

7 _____ are the strengthening components with holes on them.

a Floors **b** Frames **c** Beams **d** Brackets

8 When a ship moves towards its bow, we say that it moves _____.

a astern **b** ahead **c** starboard abeam **d** port bow

9 Accommodation, bridge and the funnel are usually at the _____ of the ship.

a amidships **b** fore part **c** after part **d** starboard side

10 If you see something at the left back of the ship, you say it is at the _____.

a starboard bow **b** port quarter **c** starboard quarter **d** port bow

11 The meals are cooked in the _____.

a galley **b** messroom **c** cabins **d** provision store

12 The vertical up and down motion of the ship is _____.

a yawing **b** heaving **c** pitching **d** surging

13 When the starboard and port sides of a ship rise and fall, we say it is _____.

a yawing **b** surging **c** rolling **d** heaving

14 _____ is the maximum weight a ship can transport.

a Gross tonnage **b** Deadweight **c** Net tonnage **d** Loaded displacement

15 _____ measurement of a ship is important for safe passage through narrow canals and berthing operations.

a LBP **b** GT **c** LOA **d** NT

E Put the words into correct order to make meaningful sentences.

1 body/vessel/is/the/main/the/of/hull/the

_____

2 plating/of/vessel/the/shell//outer/is plating/the

_____

3 to/the/extends/stern/bow/keel/from

_____

4 placed/frames/athwart/are

_____

5 brackets/frames/via/beams/are/and/connected

_____

6 divide/bulkheads/sections/vessel/watertight/into/the

_____



UNIT 3

SAFETY AND EMERGENCIES

http://kitap.eba.gov.tr/KodSor.php?KOD=28485

- Recognise work-related risks on board
- Talk about the precautions taken to prevent occupational accidents on board and at the ports
- Get familiar with personal protective equipment used on board
- Learn about marine accidents and immediate actions in case of an accident
- Recognise life-saving appliances and fire-fighting equipment
- Learn basic emergency signs, distress signals and what they are used for
- Practice the dialogues that can occur in emergencies
- Get familiar with medical emergencies and injuries faced on board
- Talk about first aid actions in certain medical emergencies
- Practice the dialogues about asking for help in medical emergencies

3A SAFETY FIRST

I. LEAD IN

Crew members might face various risks when working on a ship. As each work has its own risks it requires particular precautions to minimise occupational accidents on board or at the port. If these actions are not taken properly, there might be serious injuries or fatalities.

- What kind of operations do you think are risky on board?
- What do you think you must do to minimise the risks while working?

II. SPEAKING

Look at the photos below, and discuss the following questions in groups.

1 What kind of a work are the people going to do in the photos?
2 What kind of risks do you think these works involve?
3 What kind of precautions have they taken?



LEARN THIS !

- **Permit-to-work** is a procedure that you get a document to allow you to do a work with high risks. It means that all risks are assessed, necessary precautions have been taken, and you are authorised to do that work.
- **Snap-back zone** is the dangerous area on the mooring deck. You mustn't stand in that area during mooring operations; otherwise, the mooring line might hit you, and you might be injured seriously or die.
- **Cargo-shifting** is the movement of the cargo from one place to another during voyage because of a sudden and harsh movement of the ship. It can be dangerous for the crew members near the cargo.

III. LANGUAGE

Need to – Must – Mustn't – Have to – Should/Shouldn't	
We use need to or must to talk about something that we think it is necessary to do.	• I **need to work** harder to pass my final test this year. • You **must wear** your protective clothing to protect yourself from accidents.
We use have (has) to when we talk about something that is obligatory to do. The obligation comes from an outer force or authority.	• You **have to fill in** a permit-to work form before beginning certain high-risk works. • A deck officer **has to keep watch** two times a day during the voyage.
We use mustn't for both the things that we think it is better not to do and the prohibitions.	• You **mustn't sleep** too late at night if you are going to wake up early in the morning. • You **mustn't operate** this machinery unless you are authorised.
We use should/shouldn't to make suggestions.	• We **should keep in touch** and come together more often. • You **shouldn't get tense** so easily. That is not good for your health or relations.

Choose the correct word in bold to complete the sentences meaningfully.

1 A crew member **has to/should** know basic safety rules to work on board.
2 You **need to/mustn't** work on the deck without your safety shoes.
3 We **have to/should** call our parents more often in case they might get worried.
4 You **have to/mustn't** keep watch if you are an officer on a ship.
5 I **need to/mustn't** sleep in the afternoon since I am going to keep watch at night.
6 You **must/mustn't** work in a confined space without an official permission.
7 You **must/shouldn't** wear a helmet during handling cargo and mooring operations.
8 You **need to/shouldn't** miss our evening gatherings in the mess room. It is fun.

IV. READING AND VOCABULARY

A

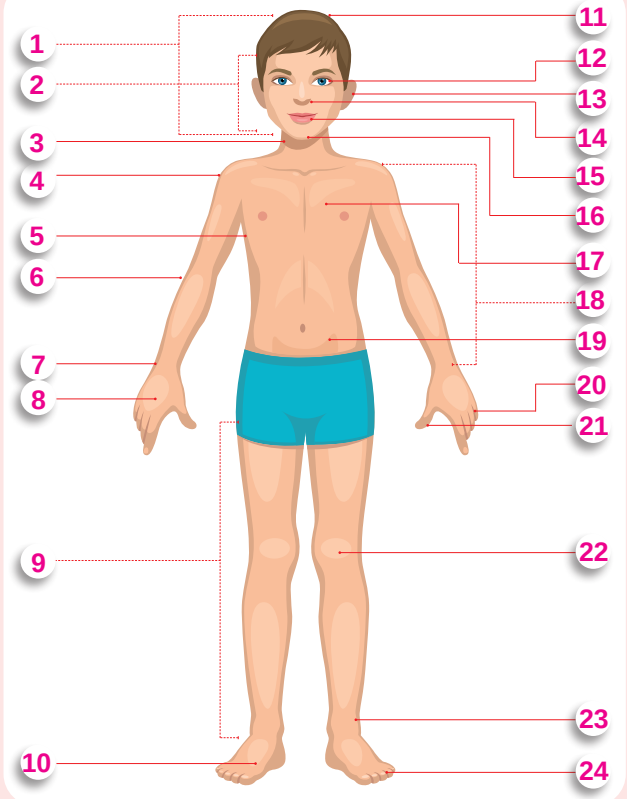
Work in pairs and write the required forms of the words below.

1 train (verb)_____ **(noun)**
2 risky (adj.) _____ **(noun)**
3 confine (verb)_____ **(adj.)**
4 occupational (adj.) _____ **(noun)**
5 protective (adj.) _____ **(verb)**
6 fatality (noun)_____ **(adj.)**
7 permission (noun) _____ **(verb)**
8 injured (adj.) _____ **(noun)**
9 supervision (noun)_____ **(verb)**
10 assess(verb)_____ **(noun)**

B **Read the basic precautions that must be taken before, or when working on board, and complete them with the words in Exercise A on Page 85.**

- _____ **1** accidents mostly happen because of not following safety rules properly; so, the crew members must get the necessary _____ **2** to do the work safely.
- You must make sure that you wear your personal _____ **3** equipment (PPE) properly before you start working.
- Before you start a high-risk work, an additional risk _____ **4** might be necessary.
- You mustn't work alone in _____ **5** operations. Someone must accompany you.
- You might need an extra _____ **6** to do high-risk works. In this situation, you have to fulfil permit-to-work procedures before you start working.
- An officer must _____ **7** the crew members while they are doing a high-risk operation.
- Have a contact with someone outside if you have to work alone in _____ **8** spaces.
- Keep in mind that a minor mistake might cause a/an _____ **9** _____ **10**; so, be alert all the time while working in high-risk areas.

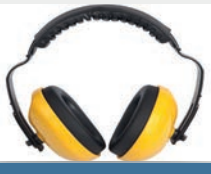
C **Match the words for human body parts with their pictures.**



1 head
_____ fingers
_____ hair
_____ leg
_____ ear
_____ back
_____ stomach
_____ ankle
_____ toes
_____ mouth
_____ shoulder
_____ knee
_____ eye
_____ hand
_____ nose
_____ elbow
_____ neck
_____ arm
_____ thumb
_____ wrist
_____ foot
_____ face
_____ chest
_____ chin

D **Write the words for PPE under the correct pictures below.**

- safety shoes
- walkie-talkie
- ear plugs
- hair net
- ~~earmuffs~~
- safety helmet
- face mask
- welding shield
- protective gloves
- goggles
- safety harness
- chemical suit
- protective clothing (overalls)
- high-visibility clothing
- self contained breathing apparatus (SCBA)



1 earmuffs



2 _____



3 _____



4 _____



5 _____



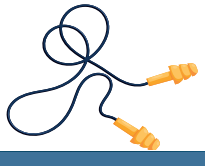
6 _____



7 _____



8 _____



9 _____



10 _____



11 _____



12 _____



13 _____



14 _____



15 _____

E Read the sentences and write the correct body part or PPE.

1 I need to wear a safety helmet to protect my _____ from impacts.
2 You mustn't touch hot things without your heat-resistant _____.
3 Always wear _____ when working on the deck to protect your feet.
4 You must wear your overalls to protect your whole _____.
5 If you have a long hair, you should cover it with a _____.
6 Wear goggles to protect your _____ from dust, sparks, chemicals etc.
7 _____ or _____ protect your ears from high-level sounds.
8 You can use a _____ to contact other crew members when you have to work alone somewhere dangerous.

F Choose a word to complete the collocations by looking at their meanings in parentheses.

lashing | sound | shifting | permit | aloft | snapback

1 to work _____ (high up)
2 rope- _____ (bounce back)
3 cargo _____ (the rope for fastening)
4 _____-to-work (allow)
5 cargo-_____ (moving, or changing place)
6 to _____ a tank (measure the depth of …)

G Match the words with the ones with the closest meaning.

1	require ____	a	endanger
2	threaten ____	b	breathe in
3	prevent ____	c	necessitate
4	inhale ____	d	stop

H Choose the correct words to complete the collocations in the sentences below.

operator | sharp | solvent | hearing | official | safety | warning | cooking

1 A crew member has to learn **basic** _____ rules to work safely on board.
2 You have to be a **trained** _____ to operate cranes in cargo handling.
3 Some operations involve a high risk, and you need a/an _____ **permission**.
4 Being exposed to high level noises for too long may cause _____ **disorders**.
5 Wear your face mask while using that **cleaning** _____. It might be poisonous.
6 Put the _____ **tools** in the drawer after using them. They might injure someone.
7 We shouldn't use the _____ **oil** again and again. It is not healthy.
8 There are a lot of _____ **signs** on a ship to warn the crew against dangers.

I Match the pictures with the **injuries** or **accidents** in the box below.



1 asphyxiation
____ loss of limb
____ fire
____ bruise
____ fracture
____ head trauma
____ cut
____ drowning
____ hearing disorder
____ burn
____ entanglement
____ skin irritation
____ poisoning
____ electrical shock

J **Choose the correct form of the words in bold to complete the sentences.**

1 Who is going to **operate/operation** the crane?
2 Keep ready the oil **spill/spillage** kit ready when you are working with oil.
3 Don't stand under the **lift/lifted** cargo. It might fall on top of you.
4 Poor **ventilate/ventilation** can cause serious health problems.
5 Close the valves tightly. We don't want any **leak/leakage** of water.
6 Fishermen freed the loggerhead which has **entangled/entanglement** in the fishing net.
7 The police are going to **secure/security** the crime scene. They are asking the people around to leave the place.

V. LISTENING AND WRITING

A **Match the words to make phrases. Listen and check your answers.**

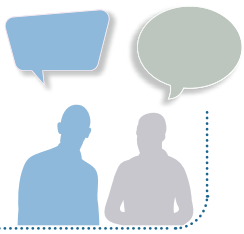
http://kitap.eba.gov.tr/KodSor.php?KOD=37987

1	confined ____	a	floor
2	slippery ____	b	substance
3	electrical ____	c	handling
4	sharp ____	d	operation
5	mooring ____	e	device
6	chemical ____	f	noise
7	heavy ____	g	weight
8	running ____	h	space
9	cargo ____	i	machinery
10	excessive ____	j	tool

B **Listen to the conversation that the chief officer is checking the safety precautions at the mooring area and complete it with the correct phrases.**

http://kitap.eba.gov.tr/KodSor.php?KOD=37988

C/O : You have to wear your _____ **1** for your safety, Mr. Clark.
A/B : Oh! I am sorry sir. I have forgotten. I am wearing it right now.
C/O : Listen everyone! You must keep away from the _____ **2** throughout the operation.
A/B : Copy that sir!
C/O : Hey Bosun! Have you worn your _____ **3**? The wires will harm your hands.
Bosun : I have them in my pocket, chief. I am wearing them now.



C **Match the operations or working areas that involve risks for accidents or injuries with the photos below. Listen and check your answers.**

http://kitap.eba.gov.tr/KodSor.php?KOD=37989

working in confined spaces ___	cargo handling ___	bunkering/working in oil tankers ___	slippery or untidy floors ___
working near running machinery ___	working aloft ___	handling chemical substances ___	painting and cleaning ___
working with electrical machinery/device ___	hot work ___ mooring areas ___	embarking/ disembarking ___	working in the galley ___



























D **Listen to the recordings and complete the missing parts of the two paragraphs with the clauses below.**

http://kitap.eba.gov.tr/KodSor.php?KOD=37990

- wear a safety harness
- you will need permit-to-work
- inform the engine room
- keep a lifeboat and a lifebuoy ready
- you must keep contact
- you shouldn't do on your own
- it might cause serious health problems
- the space must be ventilated well
- to prevent gas poisoning or asphyxiation
- the funnel, masts, cranes

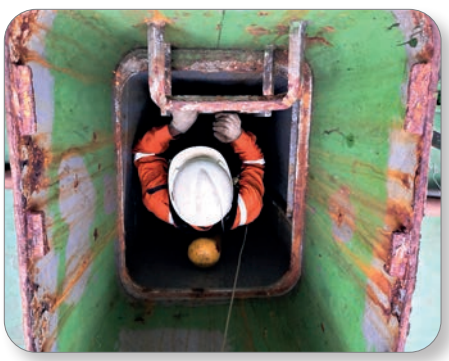
Working Aloft



Some works on board require climbing up to heights such as _____ **1**, or the outboard of the ship. They might be extremely dangerous; so, all possible risks must be assessed carefully. You will also need officer supervision and permit-to-work to work aloft. Additionally, it is one of the works that _____ **2**. Someone must watch you when you are working. You must inform the bridge before working on the main mast, because the radar and other electrical equipment must be switched off. Similarly, you must _____ **3** before working on the funnel, because they must stop the engines. Don't work in bad weather conditions. _____ **4** during the operations on the outboard. You must _____ **5** to protect yourself against falling from the heights. Otherwise, you can fall into the water and drown, or you can injure yourself seriously. You might have bone fractures, bruises, or even serious traumas that threaten your life. You must also wear a safety helmet to protect your head, and you might need different types of equipment such as bosun's chair or safety net according to the area you are going to work. All the equipment must be checked before using, and they must be in good condition.

Working in Confined Spaces

Working in confined spaces such as cargo holds, cargo tanks, pump rooms, oil and water tanks need utmost attention since _____ **6** or even loss of life unless necessary precautions are taken. It is one of the working areas that _____ **7**, officer supervision and additional risk assessment. Oxygen level and gas content must be checked _____ **8**. Poor ventilation may cause serious health problems; so, _____ **9** before entering in. If there is electricity, the confined space must be insulated. There must be adequate lighting to avoid accidents. Appropriate PPE must be worn and SCBA must be kept ready, as well. Even if you have taken all necessary actions, someone must wait you outside, and _____ **10** via a walkie-talkie or another radio device for immediate actions in emergency. Finally, recovery and rescue equipment must be in good condition and ready in place and you mustn't work in bad weather conditions.



E **Read and listen to the paragraphs in Exercise D on Page 92 again, and tick the correct columns for the risks, basic precautions and special PPE on the table below.**

http://kitap.eba.gov.tr/KodSor.php?KOD=37990

	Risks, Precautions, PPE	Working Aloft	Working in Confined Spaces
1	Permit-to work form		
2	Risk assessment		
3	Communication with the outside		
4	Safety harness		
5	Adequate lightning		
6	Don't work in bad weather		
7	Gas poisoning and asphyxiation risks		
8	SCBA		
9	Inform specific rooms		
10	Someone to standby for your safety		

F1 **Study the first part of permit-to-work form below, and write the correct information to complete it.**

Responsible Officer | **Date** | **Location** | **Personnel Details** | **Description of the Work** | **Hours**

CONFINED SPACE ENTRY PERMIT			
_____ 1:	Tank check		
_____ 2:	Water ballast tank Starboard 3		
_____ 3:	C/O and A/B		
Permit Validity :	_____ 5: 04.12.2021	_____ 6:1500 LT/1600LT	
_____ 4:	C/O		

F2 **Complete the second part of the form about requirements above with the given words.**

responsible	**assessment**	**communication**	**PPE**	**insulated**
ventilated	**lighting**	**condition**	**rescue**	**gas content**

REQUIREMENTS	Checked
Has the atmosphere and _____ 1 been tested and found safe?	YES
Has the confined space been _____ 2 adequately?	YES
Are the _____ 3 and recovery equipment ready in place?	YES
Is the safety standby person ready in place?	YES
Is the _____ 4 adequate?	YES
Has the appropriate _____ 5 been worn?	YES
Has the breathing apparatus been checked, and it is in good _____ 6 ?	YES
Is the personnel familiar with the breathing apparatus?	YES
Is the _____ 7 officer ready in the entrance?	YES
Has the _____ 8 of the personnel with the outside been arranged?	YES
Has the confined space been _____ 9 from the electricity?	N/A (No electricity)
Has the risk _____ 10 been completed?	YES
* A copy of this form must be kept on the ship for supervisions.	
Responsible Officer	**The Master**

F3 **Prepare a similar permit-to-work form for working aloft with your partner using the information that you have learned in Exercise D on Page 92.**

WORKING ALOFT PERMIT		

G **Listen to five speakers and write the correct risky operation or working area from Exercise C on Page 91.**

http://kitap.eba.gov.tr/KodSor.php?KOD=37991

SPEAKER 1	
SPEAKER 2	
SPEAKER 3	
SPEAKER 4	
SPEAKER 5	

H **Listen to five speakers in Exercise G again, and complete the sentences below.**

1 Falling into the water and drowning is a risk during _____ unless you take necessary precautions.
2 Cuts, burns, electrical shock and fire are the major risks when working _____.
3 Sparks and UV rays may harm your eyes and face if you don't wear a _____ during hot work.
4 Check the leakage of _____ before you start working with electrical machinery or devices.
5 Inhaling paints or cleaning solvents might cause _____ during painting or cleaning.
6 You must have a special training and you have to fill in a permit-to-work form to do _____ on board.
7 Put a warning sign next to the switch when you are working _____.
8 Embark or disembark a ship using the _____ or the accommodation ladder.
9 You should wear goggles, protective gloves, overalls and a _____ while painting.
10 _____ equipment must be close to you, and you must know how to use it when you are working in the galley.

I **Listen to six speakers in the recordings, and complete the sentences with the words you hear.**

http://kitap.eba.gov.tr/KodSor.php?KOD=37992

SPEAKER - 1

- You mustn't get too close to a working machinery. **E**_____ 1 is a major reason for injuries such as **b**_____ 2, fractures, or loss of **l**_____ 3.
- You should cut the power off during **m**_____ 4 operations in order to prevent electrical shock.
- Excessive noise can cause **h**_____ 5 disorders.

SPEAKER - 2

- Mooring areas must be tidy, and mooring lines must be stowed well; otherwise, entanglement and **t**_____ 1 can cause falling, and it might end in bruises, **f**_____ 2, traumas, loss of a limb, or falling into the water and **d**_____ 3.
- Stay away from the snap-back **z**_____ 4; or **m**_____ 5 line snap-back can injure you seriously.

SPEAKER - 3

- Working with chemicals without **p**_____ 1 clothing can cause skin irritation and eye injuries.
- You mustn't **i**_____ 2 chemicals, because they might be poisonous.
- A series of actions are necessary like checking the tanks for any leakage, or **v**_____ 3 the area well.
- Keep medical **f**_____ **a**_____ 4 and fire-fighting equipment ready in case of an emergency.
- If there is a leakage stop the operation and clean the **s**_____ 5 at once.

SPEAKER - 4

- If the floors are **s**_____ 1 and untidy, you can slip, or trip and fall which can give you painful bruises, fractures or traumas.
- **P**_____ 2 away all the equipment after each use and clean the water or oil **s**_____ 3 immediately.
- Put a warning **s**_____ 4 if the floor is **w**_____ 5.

SPEAKER - 5

- Sound oil **t**_____ 1 and check the pressure of oil frequently.
- Don't let the oil connect with your **s**_____ 2 or eyes.
- If there is a spillage, secure and **c**_____ 3 the area immediately, because it might damage **m**_____ 4 life besides the injuries.

SPEAKER - 6

- **F**_____ 1 objects and being hit by huge cargo equipment are major accidents during cargo operations causing serious injuries like head traumas, bruises, or fractures; so, you shouldn't stand under the **l**_____ 2 loads.
- Cargo-**s**_____ 3 can be also be a life-threatening accident; therefore, you must check and secure the cargo **l**_____ 4 carefully.
- Lift heavy things by taking the strength from your **l**_____ 5, not from your back, and ask someone for help if the load is too heavy for you.

3A SAFETY FIRST

J Listen to four of the speakers in Exercise I again, and write three basic PPE for each operation/working area below. You will use some of them more than once.

http://kitap.eba.gov.tr/KodSor.php?KOD=37993

safety shoes	earmuffs	rubber gloves	ear plugs	high-visibility clothing
chemical suit	hair net	safety helmet	SCBA	protective overalls

1 Working with the running machinery

_____

_____

_____

2 Mooring areas

_____

_____

_____

3 Working with chemical substances

_____

_____

_____

4 Cargo handling

_____

_____

_____






I. LEAD IN

There can be various marine accidents and emergencies on board due to human errors or problems with the vessel's equipment. Some of them result in individual injuries while some others affect the whole vessel and also endanger marine life.

II. SPEAKING

Discuss the following questions in groups.

1 What can be human errors in marine accidents?
2 What equipment of a vessel can cause emergency or an accident onboard?

III. READING

A Write the collocations next to their definitions.

life-saving appliances	emergency signs	muster station	muster list
emergency escape routes	emergency drills	distress signals	first aid

1 _____: practices of procedures applied in case of an emergency
2 _____: a duty list for each crew member to fulfil in an emergency
3 _____: planned paths for a safe evacuation in case of an emergency
4 _____: signals sent from a vessel in danger
5 _____: a gathering place for the crew and the passengers in emergency situations
6 _____: a basic urgent care applied to an ill or injured person until the arrival of medical services
7 _____: signs that guide you on different parts of the vessel in emergency situations
8 _____: equipment serving to save someone's life in case of an accident

B Read the text complete the blanks with the collocations from Exercise A.

Emergencies may occur on board due to bad weather conditions, machinery malfunction, human error or piracy. These emergencies can lead to fire, flooding, grounding, collision, serious injuries, loss of life and environmental pollution. Emergency procedures and _____ 1 must be applied immediately in case of an accident. _____ 2 and messages must be sent when necessary. Each crew member must know _____ 3, the shortest ways to the nearest _____ 4, the locations of _____ (LSA) 5 and fire-fighting equipment (FFE) on board. They must also understand standard safety, warning and _____ 6 and learn their assigned duties on the _____ 7. All crew members must know how to apply first aid and use fire-fighting equipment. For this reason, the crew must have the necessary training, attend regular safety meetings and take place in _____ 8 regularly.

3B MARINE ACCIDENTS AND EMERGENCIES

IV. VOCABULARY

A Match the pictures with the names of marine accidents.



1 oil spill ____
2 man overboard ____
3 collision ____
4 grounding ____
5 listing ____
6 sinking ____
7 fire on board ____

B Match the names of marine accidents with the definitions.

1 _____: crashing of two vessels that causes damage
2 _____: leaning of a vessel to one side because of unstable cargo stowage, bad weather conditions or collision
3 _____: impact of a vessel's bottom to the seabed or a shallow rock
4 _____: burning of a vessel's surface or equipment
5 _____: flooding of a vessel that ends in going down to the sea-bottom
6 _____: leakage of oil from the vessel's tanks that causes marine pollution
7 _____: falling of a person over one side of a vessel into the water

C Match the words with their synonyms.

1	craft ____	a	danger
2	hazard ____	b	crash
3	appliance ____	c	evacuation
4	aid ____	d	equipment
5	abandoning ____	e	movable
6	collision ____	f	vessel
7	portable ____	g	help

D **Write the numbers of the life-saving appliances (LSA) next to their names.**

___ emergency position indicating radio beacon (EPIRB)	___ rescue boat	___ liferaft
12 search and rescue radar transponder (SART)	___ embarkation ladder	___ life jacket
___ buoyant smoke signal	___ immersion suit	___ lifeboat
___ thermal protective aid (TPA)	___ free-fall lifeboat	___ lifebuoy
___ GMDSS handheld VHF radio	___ inflatable life jacket	___ first aid kit


1


2


3


4


5


6


7


8


9


10


11


12


13


14


15

E Write the correct life-saving appliances from Exercise D to complete the sentences.

1 We wear a/an _____ to float in water when we cannot swim.
2 We use a/an _____ or a/an _____ to abandon the vessel.
3 We use a/an _____ for the injuries that need immediate medical assistance.
4 A/an _____ is filled with CO_2 gas when we pull the cord on it.
5 A/An _____ slides out from a ramp on board into the water.
6 A/An _____ protects our body from freezing in cold water.
7 A/An _____ detects signals from radars of rescue ships and sends back signals from the survival crafts to be located.
8 We use a/an_____ to keep the injured warm after an accident.
9 We usually throw a/an _____ immediately to help a man overboard.
10 A/An _____ is a portable device used to communicate on survival crafts.
11 A/An _____ is a compact daylight distress signal used to locate survival crafts.
12 A/An _____ is used to get off board.
13 We lower down a/an _____ to take person overboard and board the ship.
14 We should activate _____ to send a distress signal to the shore.

F Where are the LSA? Circle the correct preposition.

1 The life jackets are **in/under** the passengers' seats.
2 The lifeboats are **on/in** the starboard and port sides of the ship.
3 The first aid kit is kept **under/in** the cupboard on deck.
4 The liferafts are hanging **next to/above** the deck railings.
5 The lifebuoy is attached **on/below** the deck railing.

V. LANGUAGE

Past Simple

We use the **past simple** to talk about …

- events that completed at a definite time in the past,
- events that happened several times in the past,
- something that was true for some time in the past.

** Be careful about the spelling changes with some regular verbs when adding **-ed** to the verb!*

*** Be careful about the past forms of irregular verbs!*

Jack **was** on watch last night.
I **checked** the emergency list.
The storm **got** worse, so the ship **drifted** to the portside.
We **did** fire-fighting drills every month last year.
I **wasn't** at the bridge this morning.
The crew members **didn't muster** on time because they all **didn't hear** the alarm.
Did you **check** your duties on the muster list? Yes, I **did**.
Did he **practise** regularly? No, he **didn't**.
How **did** the man **fall** overboard?

Fill in the gaps using past simple form of the verbs in parentheses.

1 A bulk carrier _____ **(hit)** a fishing vessel in the Black Sea yesterday.
2 My father _____ **(work)** on a cargo carrier last year.
3 _____ the firefighters _____ **(put out)** the fire easily?
4 John _____ **(have)** a safety meeting two hours ago.
5 _____ the fire assistance _____ **(arrive)** on time? No, it _____.
6 There _____ **(be)** a great risk of collision so the master _____ **(change)** the route.
7 What _____ the crew _____ **(do)**?
8 The officer of watch _____ **(sign)** the log books.
9 The third officer _____ **(go)** to his cabin to rest after the watchkeeping.
10 After the explosion, they _____ **(carry out)** a damage report.

VI. LISTENING

A **Listen to the urgency call and the distress call from two vessels and write the missing phrases.**

http://kitap.eba.gov.tr/KodSor.php?KOD=37994

CONVERSATION 1:

1 I require _____.
2 What is the state of the _____?
3 There is _____.
4 We _____ bleeding.
5 I will send a helicopter _____ to pick up the injured person.

CONVERSATION 2:

6 This is _____ FAREND TANGO-CHARLIE-ALFA ONE-EIGHT.
7 Fire is in the _____.
8 Is fire _____?
9 I require _____.
10 Two fire-fighting _____ and a fire-fighting _____ is coming to your assistance.

3B MARINE ACCIDENTS AND EMERGENCIES

B **Listen to the conversations again and write TRUE or FALSE next to the sentences.**

http://kitap.eba.gov.tr/KodSor.php?KOD=37994

CONVERSATION 1:

1 Urgency call sign is PAN-PAN. _____
2 The vessel is a tanker. _____
3 There are two injured people. _____
4 The injuries of the crew needs urgent care. _____
5 Doctor is coming by a rescue boat. _____

CONVERSATION 2:

6 Distress call sign is MAYDAY. _____
7 Fire is not put out yet. _____
8 The vessel doesn't need help to set out the fire. _____
9 There are some injured crew on board. _____
10 Fire assistance is coming in ten minutes. _____



LEARN THIS !

Standard Marine Communication Phrases (SMCP) are used for both onboard communication and external communications in maritime. These phrases are intended to minimise misunderstandings in order to prevent marine accidents. There are special signals for distress, urgency and safety situations and rules about how to start, continue and end communications.

- **PAN-PAN PAN-PAN PAN-PAN**
- Position **FOUR ONE DEGREES THREE ZERO MINUTES NORTH ZERO TWO NINE DEGREES ONE EIGHT MINUTES EAST (41° 30' N-029° 18' E).**

VII. READING

A **Read the article and complete it with the past forms of the given verbs.**

Very Serious Marine Casualty:
Collision between a containership and a general cargo vessel

(IMO Lessons Learned for Presentation to Seafarers (III 1) 19 Collision)

What happened?

be	reduce	turn(x2)	approach	sink

A container ship and a general cargo vessel _____ **1** each other in dense fog. One _____ **2** to port towards the other, while the other _____ **3** to starboard. The latter _____ **4** speed, but not until the very last moment. After the collision, the latter _____ **5** and everyone _____ **6** lost.

B **Match the two halves of the sentences to find out the reasons of the collision.**

Why did it happen?

1	There was dense fog ___	**a**	how to act in restricted visibility
2	Actions taken by the officers on both vessels ___	**b**	at the time of the collision
3	There was a lack of understanding of ___	**c**	were inadequate or too late

C **Complete the sentences with the given phrases.**

restricted visibility	collision regulations	dangerous situation

What can we learn?

- Restricted visibility needs special attention, and appropriate actions in accordance with the _____ **1**.
- The officers of both vessels realised very late that a _____ **2** was developing. They might have acted differently with better training and understanding of how to act in _____ **3** and other potentially dangerous situations.

D **Work in pairs and re-write the lessons you learned from the marine accident on Page 103 using 'must'.**

e.g., *We must pay special attention to restricted visibility when there is dense fog.*

1 _____
2 _____
3 _____

E **Read the sentences and write TRUE or FALSE according to the article in Exercise A on Page 103.**

1 The visibility was clear during the accident. _____
2 Both vessels turned to the same side. _____
3 Only one vessel reduced its speed. _____
4 The officers took immediate action. _____
5 After the collision, the general cargo ship sank down. _____

F **Write A for abandon ship or F for fire on board for the duties in the muster list.**

1 Bring EPIRB and SART. ___
2 Wear firefighter's outfit. ___
3 Cut off the electricity of the area. ___
4 Bring food and blankets. ___
5 Activate the emergency fire pump. ___
6 Equip the fire hose. ___
7 Bring portable fire extinguisher. ___
8 Let go the pelican hooks of the lifeboat. ___
9 Carry out the duty of the helmsman. ___
10 Activate the CO_2 system. ___
11 Prepare disembarkation ladder. ___
12 Close ventilation dampers. ___



G **Write three actions taken in case of a marine accident under their names.**

COLLISION		
3		
GROUNDING		
FIRE ON BOARD		
MAN OVERBOARD		
FLOODING		
OIL SPILL		

1 Shut down the electrical circuit of the area.
2 Bring oil spill kit immediately.
3 Activate 'Not under command' shape and lights. ✓
4 Sound the water depths from various sides of the shipboard.
5 Detect the source of the seawater entrance.
6 Throw a lifebuoy with a light and smoke marker.
7 Close all the fire dampers, fuel pumps and fuel valves.
8 Check the nature of the seabed.
9 Lower down a rescue boat.
10 Pump out seawater from the ship.
11 Start a Williamson turn manoeuvre considering the casualty's side.
12 Attach International Shore Connection properly.
13 Contain and clean up the spill.
14 Detect where the bottom of the ship touches the seabed.
15 Check the stability of the vessel.
16 Close the valves and stop the leakage.
17 Stop the seawater entering to the ship.
18 Record the identification of the vessels, damages and other details.

VIII. WRITING

Work in pairs and write three more actions that can be taken in case of a marine accident that you choose.

CLUE WORDS: activate, bring, check, close, detect, shut, sound, start, stop, record, wear

MARINE ACCIDENT:

ACTIONS TO BE TAKEN:

1

2

3

EMERGENCY PRECAUTIONS ON BOARD

I. LEAD IN

Every crew member must be aware of different emergency situations that may arise on board and know how to act in case of emergencies. Determination of hazards on board and taking necessary precautions to reduce the risks of possible accidents is an important part of safety management. Continuous training and practical drills on board help seafarers to understand the real scenario and to prevent harm to human life, properties and the environment.

Discuss the following questions in groups.

- What kind of precautions can be taken to minimise marine accidents and their effects?
- What signs are placed on board to warn and draw attention to emergencies?

II. VOCABULARY

A **Match the words and make collocations.**

1	radio ____	a	craft
2	environmental ____	b	entry
3	breathing ____	c	load
4	distress ____	d	hazard
5	unauthorised ____	e	exit
6	muster ____	f	device
7	survival ____	g	clothing
8	emergency ____	h	beacon
9	lifted ____	i	signal
10	protective ____	j	station

B **Use the collocations from Exercise A to complete the sentences.**

1 All the passengers were in panic, so there was a lot of noise at the _____.
2 They couldn't send help to the ship in time because the _____ wasn't sent.
3 The alarm sounded because of a/an _____ into the headquarter.
4 The firefighter put his own _____ on the casualty otherwise she would suffocate because of the smoke.
5 The _____ was blocked so a lot of people couldn't escape from the burning building.
6 The technician wasn't wearing his _____, so he got seriously injured at the accident.
7 The lines broke off during the loading operation because _____ was too heavy.
8 They tried to locate the survivors following the _____ from their lifeboat.
9 We should place first aid kit and blankets in every _____.
10 There can be a/an _____ if a tanker collides with something or another vessel.

C Write numbers of signs next to their meanings.

→	search and rescue transponder (SART)	→	line throwing appliance	→	fire alarm call point	→	stretcher
→	emergency escape breathing device (EEBD)	→ 23	emergency position indicating radio beacon (EPIRB)	→	hot work prohibited	→	fire extinguisher
→	survival craft distress signal	→	environmental hazard	→	muster station	→	fire blanket
→	wear protective clothing	→	wear safety harness	→	explosion hazard	→	lifeboat
→	no unauthorised entry	→	wear welding shield	→	slippery surface	→	fire hose reel
→	rocket parachute flare	→	lifted load hazard	→	emergency exit	→	first aid
						→	no smoking



D Write numbers of signs from Exercise A in the sentences below.

a _____, _____ and _____ show where we can find PPE.

b _____, _____, _____ and _____ are placed to warn us about something.

c _____ and _____ show the places of pyrotechnic equipment.

d _____, _____ and _____ show that something is prohibited.

e We check for _____, _____, _____ and _____ in case of fire.

3B MARINE ACCIDENTS AND EMERGENCIES

III. READING

Read the announcement and complete it with the given words.

muster	**obey**	**abandoned**	**life jackets**	**drill**	**immersion**	**captain**

All crew members and passengers, attention please! This is your _____ **1** speaking. This is not a _____ **2**. (x3 times) Ship will be _____ **3**. (x3 times) All crew members and the passengers must wear _____ **4**, take _____ **5** suits and go to _____ **6** stations. All passengers must _____ **7** the given orders. Keep calm. There is no reason to panic.

IV. LISTENING

Listen to the conversation between the third officer and the deck cadet and fill in the missing information in the sentences.

http://kitap.eba.gov.tr/KodSor.php?KOD=37995

1. The third officer and the cadet are checking the _____.
2. They need to look at the _____ and the lifeboats.
3. There are _____ hand flares, _____ rocket parachute flares and _____ buoyant smoke signals.
4. The equipment will expire in _____.
5. They will add necessary equipment to the requisition list _____.

V. WRITING AND SPEAKING

A **Put the sentences into correct order and then practice the conversation with your partner.**

A/B: Yes, sir. Sure. ____
C/O: Very well. I hope everyone knows their duties like Michel. Thanks, Mitchel. ____
A/B: To help the assigned crew wear his firefighter's outfit. ____
C/O: All crew must know their duties on their muster cards. Do you know them, Mitchel? ____
A/B: Yes, sir. To lower the liferaft down to the sea. ____
C/O: So, can you tell me your duty in case of fire? ____
C/O: Okay. What about your duty while abandoning the ship? ____

B **Write a similar conversation changing the persons and the duties. Role-play it with your partner.**

FIRE-FIGHTING

I. LEAD IN

Discuss the following questions in groups.

- What may cause a fire on board?
- How can we extinguish different types of fire?

Put the letters into correct order and match them with the elements in the fire triangle.

B U E C M T I L S O B _ _ _ _ _ _ _ _ _ _ _ _
Y O N G E X _ _ _ _ _ _
E T H A _ _ _ _



II. VOCABULARY

A Match **fire-fighting equipment (FFE)** to their pictures.

fire extinguisher ___ | firefighter's outfit ___ | fire alarm button ___

fixed CO_2 fire extinguishing system ___ | emergency escape breathing device (EEBD) ___

fire hose ___ | fire blanket ___ | fire hydrant ___

















B **Write the names of the FFE from Exercise A on Page 109.**

1 Firefighters wear a _____ to protect their body from the flames.
2 We use a _____, made of non-flammable cloth, to block oxygen and stop small fires in the galley.
3 _____ releases CO_2 into the air to reduce oxygen level and eases to extinguish fires.
4 An _____ provides 10-15 minutes oxygen for the wearer where it is dangerous to inhale the smoke, gas or fumes while escaping.
5 We should activate _____ to sound the alarm and warn the crew and passengers about a fire.
6 A _____ sprays water, foam, dry chemical powder or CO_2 on the flames.
7 A _____ is used to transfer water from the hydrant to the fire area.
8 A _____ is used to release water from the water supply with a valve and a hose connection coupling.

III. READING

A **Complete the text about fire prevention on board with the given words.**

safety	**engine**	**pipes**	**discharging**
forbidden	**flames**	**source**	**lubricating**

HOW TO PREVENT FIRES

The most important thing to deal with fire on board is to prevent them. Understanding how fires start in the first place is the first step for preventing them. Fire breaks out when an ignition _____ **1** interacts with heat and causes spark that result in _____ **2**.
Important points to consider about fire prevention:

- Don't leave oil-soaked rags around, especially in the _____ **3** room.
- Detect fuel oil, _____ **4** oil, exhaust gases and steam leakages.
- Check and maintain the _____ **5** for leakage.
- Keep electrical equipment maintained.
- Never smoke in _____ **6** areas and dispose of tobacco products properly.
- Take necessary precautions during loading and _____ **7** of combustible cargo.
- Check the fire detectors (flame, smoke, heat), fixed fire extinguishing systems (CO_2, foam, dry powder, sprinkler) and fire-fighting equipment regularly.
- Attend _____ **8** meetings and practice fire drills at least once a month.

B Match the highlighted words from Exercise A on Page 111 with their definitions.

1 _____: extremely wet
2 _____: easy to catch fire; flammable
3 _____: the act of starting to burn
4 _____: a device used to discover a substance or measure its level; sensor
5 _____: the waste gas from an engine
6 _____: to get rid of something
7 _____: a very small piece of fire; flash

C Complete the actions taken in case of fire with the correct verb.

Apply	Isolate	Inform	Wear	Sound	Muster	Use

1 _____ the fire alarm.
2 _____ the bridge team.
3 _____ the fire team.
4 _____ the fire by closing ventilation system, skylights, doors, etc.
5 _____ boundary cooling.
6 _____ a fire fighter's suit and breathing apparatus before entering the fire area.
7 _____ the appropriate fire extinguisher according to the type of the fire.

IV. LISTENING

A Listen to the conversation and complete the sentences.

http://kitap.eba.gov.tr/KodSor.php?KOD=37996

1 Everybody wore their _____.
2 _____ the electricity and the ventilation of the fire area?
3 We are waiting for your commands to intervene the fire _____.
4 We are entering the accommodations and beginning to _____.
5 Start the _____ of the accommodation.

B Listen to the conversation again and answer the questions.

1 How many fire teams are there? _____
2 Did they cut off the electricity and the ventilation of the fire area? _____
3 Which team is entering the accommodations? _____
4 What is the second team doing? _____
5 Where are the fire teams reporting to? _____

V. WRITING AND SPEAKING

A **Complete the instructions of how to use a fire extinguisher by putting the words into correct order.**



1 the/pin/pull
P_____
2 nozzle/the/base/at/aim/fire/the/of
A_____
3 the/handle/squeeze
S_____
4 from/sweep/to/from/side/side
S_____

REMEMBER PASS WHEN USING A FIRE EXTINGUISHER !

B **Study the table showing types of fires and fire extinguishers. Explain the usage of fire extinguishers as in the examples.**



A WOOD, PAPER, FABRICS, ETC.	✓	✓	✓	✓
B FLAMMABLE LIQUIDS	✗	✓	✓	✓
C FLAMMABLE GAS	✗	✓	✓	✗
D METAL ALLOYS	✗	✓	✗	✗
F COOKING OIL, FATS	✗	✓	✓	✗

e.g.*, *We can use water only to put out type A fires. /We can use all types of fire extinguishers to put out type A fires. /We cannot use water to put out type B, C, D and F fires.

1 _____
2 _____
3 _____
4 _____

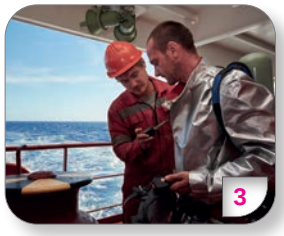
C **Look at the pictures of a fire-fighting drill on a ship. Work in pairs and explain the preparations using the clue words and note them.**

boots	helmet	gloves	belt	outfit

self contained breathing apparatus (SCBA)	waterproof flashlight













e.g., ***A crew member is wearing a firefighter's outfit to protect his body from flames.***

3B MEDICAL EMERGENCIES AND FIRST AID

I. LEAD IN

First aid is the immediate care given to an injured person until s/he gets a full medical assistance.



II. SPEAKING

A **Discuss the following questions in groups.**

- What can be three aims of first aid?
- Have you ever experienced a first aid situation? If yes, talk about it.
- What do you think the qualities of a first aider are?

B **The very first thing about first aid is to know First Aid's ABC. Each letter stands for a word. Discuss in groups what these words can be, and why checking these situations are so important.**



A _____ y

B _____ g

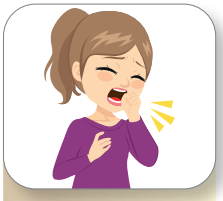
C _____ n

III. VOCABULARY

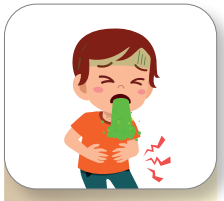
A Write the names of **injuries** or **symptoms** under the photos.

vomiting	fatigue	nosebleed	shortness of breath
choking	backache	cough	nausea
frostbite	stomachache	fever	burn
swelling	sprain	hypothermia	headache


1 _____

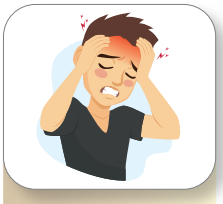

2 _____


3 _____


4 _____


5 _____


6 _____

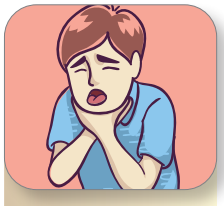

7 _____


8 _____

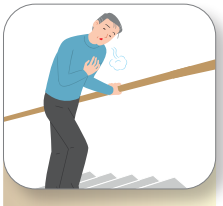

9 _____


10 _____


11 _____


12 _____


13 _____


14 _____


15 _____


16 _____

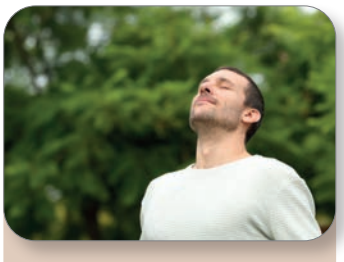
3B MEDICAL EMERGENCIES AND FIRST AID

B **Look at the photos and fill in the blanks with the given words.**

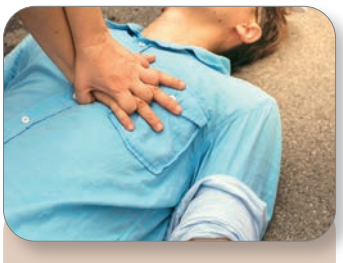
fracture	injury	blister	airway
cardiopulmonary resuscitation (CPR)		bruise	accident
breathing	burn	casualty	



1 She suffered an ankle _____ while running to her office.



2 Asthma causes difficulty in _____ and requires urgent treatment.



3 If the victim is not breathing and has no pulse, _____ should be started.



4 Last year, my ribs were broken in a car _____.



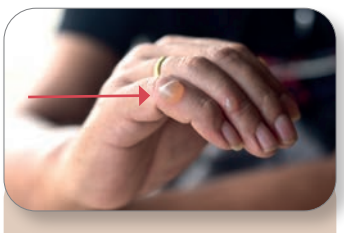
5 Cooling the _____ is important because it helps reduce pain and lowers the risk of long-term scarring.



6 Do not breathe, cough, or sneeze over a wound while you are treating a/an _____.



7 He fell from his horse and suffered a wrist _____.



8 It is not a good idea to pop a/an _____.



9 I've got a/an _____. I hit my leg against the corner of the table.

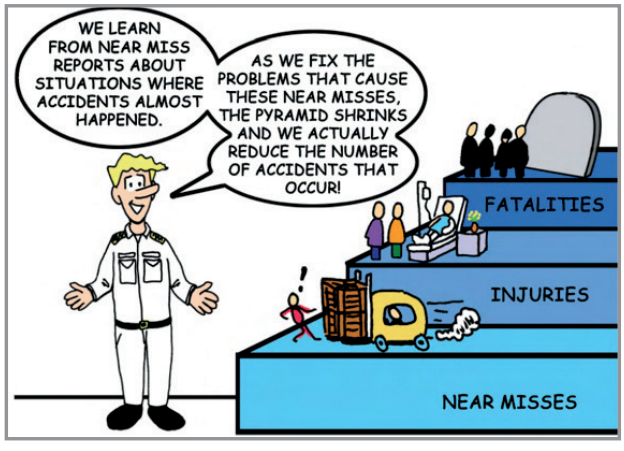


10 Checking whether the casualty's _____ is open should be one of the primary steps in first aid treatment.

C Fill in the blanks using the words in Exercise B on Page 116. You can use plural forms if necessary.

Medical emergencies often occur on ships as there is a lot of work to do. Some onboard ***accidents*** **1** may result in a serious _____ **2**, or even loss of life if the first aid is not applied properly. Falling is among the most common types of emergencies on board. Crew members may fall during various operations such as loading/discharging, working aloft, cleaning, or working on slippery surfaces. As a result, _____ **3** and/or _____ **4** may occur in certain parts of the body. Damage increases with the height. If the _____ **5** does not respond to verbal and physical stimuli, s/he may be experiencing difficulties in _____ **6** In such cases, her/his _____ **7** may not be open, or circulation may stop as a result of cardiac arrest. If so, _____ **8** should be performed immediately.

_____**9** are also among the major type of medical emergencies that you may face on board. They may result from exposure to chemicals, fire, boiling water, steam and oil. Common symptoms can be minor swellings and _____ **10**, or even life-threatening injuries. Performing first-aid can ease the pain, and help the casualty gain time until professional medical assistance is reached.



D Read the text in Exercise C again, and match the definitions with the highlighted words.

1 _____: sudden loss of blood flow
2 _____: being affected by something
3 _____: to make less severe
4 _____: something that causes a reaction or change
5 _____: movement of blood in our veins

E Choose the correct form of the words in bold.

1 The cadet's pulse was weak but alive, and his body was covered with **blood/bleeding**.
2 To check the **breathing/breathe** of the casualty is one of the first steps of first aid.
3 Crew members brought the **injury/injured** seaman to the hospital.
4 Young steward **broke/broken** his wrist while cleaning the galley.
5 An **explode/explosion** followed the accident that happened during the discharge.

3B MEDICAL EMERGENCIES AND FIRST AID

F **Choose the correct first aid kit items from the box to place them in the crossword according to the clues. Then write the numbers used in crossword to match them with their pictures.**

Down

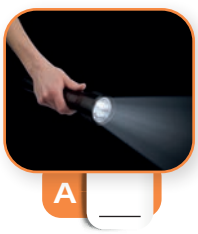
1 a drug used to reduce pain, fever and inflammation
2 a piece of thin cotton cloth used for covering and protecting wounds
5 a portable battery-powered electric lamp.
6 a small tool used for picking up tiny things from a surface.
7 a piece of material that can be applied to the skin to cover a small wound or cut

Across

3 a metal material used to attach something
4 a substance applied to the skin to smooth the wound or to cure it
8 a piece of cloth used for tying around an injured part of body to protect or support it
9 an instrument used for measuring temperature
10 a sharp tool used for cutting paper or cloth



gauze
bandage
aspirin
plaster
thermometer
safety pin
scissors
torch
ointment
tweezers


A ___


B ___


C ___


D ___


E ___


F ___


G ___


H ___


I ___


J ___

G **Match the words to complete the names of the first aid items.**

1 medical ___	a bandage
2 triangular and rolled ___	b ointment
3 antiseptic ___	c wash or drop
4 eye ___	d manual
5 first aid ___	e gloves

IV. LISTENING

Listen to the life-saving steps carefully and put the sentences into the correct order.

http://kitap.eba.gov.tr/KodSor.php?KOD=37997

____ See if there are burns on the casualty's body. If yes, you can cover them with a clean dry cloth.
____ Check the breathing by placing your ear next to the casualty's mouth and nose and be sure heart is beating by checking the pulse of the casualty's neck.
____ Check for fractures by asking if s/he can move or feel her/his body parts.
____ Check for the signs of a head injury such as fluid from ears, nose, mouth or wounds to the head or face, as well as speech disorders.
____ Try to understand if the casualty is conscious by asking in a loud but calm voice. You can also gently shake the casualty.
____ Check for signs of shock such as sweaty but cool skin, thirst, quick breathing, vomiting etc.
____ Check for bleeding by looking at her/his clothes or wounds.

V. READING AND WRITING

A **Write M for myth, or F for fact for the sentences below.**

1 Put some antiseptic cream or butter on a burn. ____
2 Do not move the casualty with a spinal injury even if s/he is in life-threatening danger. ____
3 In case of a nosebleed, hold the casualty's head forward and pinch the bridge of the nose. ____
4 Take out the sharp object from the body. _____
5 Do not perform the Heimlich Maneuver if the choking person is coughing. _____
6 You can clean a wound with water. _____
7 Apply an ice pack to the sprained ankle, and make sure the ice doesn't touch the bare skin. ____

LEARN THIS !

The first step of first aid is to understand the consciousness level of the casualty by using **AVPU** scale. AVPU is an acronym made of the first letters of the words; **A**lert, **V**erbal, **P**ain and **U**nresponsive for the consciousness levels.

3B MEDICAL EMERGENCIES AND FIRST AID

B **Match the situations with the relevant consciousness level.**

Alert	_____
Verbal	_____
Pain	_____
Unresponsive	_____

1 The second officer fell from the gangway while rushing to the ship. Fortunately, he was awake; his eyes were normally open, and he responded to the voices and tracked what was happening around.
2 As soon as they heard a noise, some of the crew members run to the deck. They saw the chief officer laying on the ground with closed eyes. He did not respond to the voices. When the master pinched him to check if he is alive or not, he reacted with a groan.
3 The steward suddenly fell to the ground while doing the dishes. He seemed unconscious: he did not move, answer questions or reacted to efforts of the first aider's movements.
4 The fitter's eyes were closed when he was pulled out of the engine room. He opened his eyes only when the first aiders told him something or he hears loud noise.

C **Read the paragraph and complete it with necessary first aid steps. Write at least four sentences.**

On 17 April 2019, M/V LUCKY JIM, a dry bulk carrier, was sailing on the Mediterranean Sea and preparing to get her next cargo. Before the loading operation, one of the crew members was cleaning the cargo hold with high-pressure water on a portable staging. During the operation, the seaman released the safety harness for a moment to change the position of the staging and the cleaning equipment, but he lost his balance and fell down on the top of a tank. Other members of the deck crew immediately ran for help. They noticed that he was not moving and he had a head wound.

D **Read the paragraph above again. Write TRUE or FALSE. If false, correct it.**

1 M/V LUCKY JIM is a vessel that transports oil. _____
2 M/V LUCKY JIM was anchored off the coasts of the Mediterranean Sea. _____
3 The seaman was working on a staging that can be moved. _____
4 Crew understood that there was no problem in circulation. _____
5 The casualty was unresponsive after the accident. _____

VI WRITING AND SPEAKING

A **Complete the conversation with the given phrases.**

2/O: Mr. Mitchell! _____ **1**
3/E: _____ **2** I have a pain in my chest.
2/O: All right. _____ **3** Can you feel your arms?
3/E: I feel a mild pain.
2/O: All right. I've checked your blood pressure. _____ **4** I'll loosen the collar of your vest.
3/E: _____ **5**
2/O: I am calling Medical Assistance for help. Relax and go on laying.

- Thank you very much.
- I will immediately measure your blood pressure.
- Are you OK?
- It is high.
- I don't feel good.

B **Practice the dialogue in Exercise A in pairs. Prepare similar dialogues using the clues given below.**

Frostbite
warm water
bandage
ointment

Fatigue
vitamins
sleep
healthy snack



Cut
gauze
water
soap

Nosebleed
tissues
pinch it

3B MEDICAL EMERGENCIES AND FIRST AID

VII. READING AND WRITING

A **Write the missing information in the first part of the form using the given phrases in the box. Then, match the questions with their answers in the second part.**

EMRE TURGUT	**23 MAY 2020 12.40 UTC**	**MALE**
36°47'55.5"N 34°38'24.9"E	**ABLE SEAMAN**	**9876543**

TELE HEALTH INITIAL REPORTING FORM

VESSEL INFORMATION

MT LUCKY JIM
IMO NUMBER: _____ **1**
CALL SIGN: TCLJM
POSITION: _____ **2**
ETA: _____ **3**
NAME AND SURNAME OF MASTER: _____ **4**

PATIENT INFORMATION

NAME AND SURNAME: YASIN BEZIRCI
GENDER: _____ **5**
DATE OF BIRTH: 27 AUG 1984
RANK: _____ **6**
IDENTIFICATION NUMBER: 11122233344

1 What is the patient suffering from? ___	**a** No known chronic diseases.
2 How did the symptoms start? ___	**b** Arm fracture 2 years ago because of falling.
3 Does s/he have other differences/problems related or unrelated to her/his injury? ___	**c** No regular use of medication.
4 Are the symptoms getting worse or getting better by time? ___	**d** Foreign objects on the wound was cleaned by using water. Pressure has been applied to the bleeding area for six minutes. Bleeding is slow but not stopped.
5 Does the casualty have any chronic disease? ___	**e** No other problems.
6 Was the casualty taking any medication regularly? ___	**f** Cut on right leg.
7 Has the casualty experienced similar symptoms/injuries in the past? ___	**g** The patient's condition is getting worse because of low blood pressure.
8 What onboard treatment is applied to the casualty and what is her/his response? ___	**h** During the mooring operation rope hit the casualty's leg.

B **Find the missing letters of medical emergencies and then write the numbers of the first aid applications into the appropriate column.**

MEDICAL EMERGENCY	FIRST AID APPLICATION	
Ch __ ki __ g		
__ u __ n		
Ca __ __ iac A __ re __ __		
F __ a __ tur __		
A__ phy __ ia__ion (Gas, smoke, chemical poisoning)		
Dro__ n __ __ g		

1 Depending on the weather conditions, treat the casualty for hypothermia; if possible, replace wet clothing with dry ones and cover him with blankets or coats.
2 Do not pop or damage any blister that may have formed.
3 If the person is unconscious, perform the Heimlich Maneuver.
4 Flush the affected area with cool running water for several minutes.
5 If the person vomits, turn her/his head to the side to prevent choking.
6 Do not move the casualty if there is not a danger around.
7 Get the person into fresh air as soon as possible.
8 If there is a partial blockage, tell the casualty to try and cough to push the object out of his airway.
9 If you are trained in CPR, give two rescue breaths then continue with cycles of 30 chest compressions and two rescue breaths until help arrives.
10 Call for medical emergency assistance.
11 Take the person out of water, check breathing and perform CPR if needed.
12 Use an ice pack to reduce swelling.

C **Choose the correct medical emergency according to the given symptoms, write it in the bubble.**

Asphyxiation	Burns	Heart attack	Choking	Fractures
• Swelling and bruise • Pain • Difficulty in moving the area	• Pain spreading from chest to the other parts of the body • Shortness of breath • Sudden fainting or dizziness	• Headache • Vomiting • Shortness of breath	• Reddened and thickened skin • Swelling and blistering of the skin • Pain in the affected area	• Speaking, coughing and breathing difficulty or inability • A change in color • Holding the throat

3B MEDICAL EMERGENCIES AND FIRST AID

PROJECT

Work in groups of four. Imagine an emergency scenario on board and plan a drill for this situation and present it to your class. Make sure your presentation includes these points:

- Make a list of precautions, PPE and LSA you need for your scenario.
- Take a role as a crew member, assign duties for each member and present them to your class including precautions, PPE and LSA you use for the scenario.
- If there is a casualty in your scenario prepare a conversation about the first aid you apply to the casualty.

SELF ASSESMENT 3

I can talk about PPE and the type of work they are used on board.			
I can talk about the work risks on board.			
I can talk about emergency situations and marine accidents on board.			
I can tell some of the emergency actions.			
I can understand some basic emergency signs.			
I can tell the names of fire-fighting equipment.			
I can talk about fire types and extinguishers.			
I can tell the items in a first aid kit.			
I can tell common injuries and medical emergencies on board.			
I can talk about the basics of first aid in emergency situations.			

REVISION 3

A Choose the correct option.

1 Snap-back zone is the dangerous area during _____ operations.

a cargo-handling **b** mooring **c** embarking **d** maintenance

2 _____ is one of the risks when you work in a confined space. To prevent it the space must be checked for the gas content, and it must be ventilated very well before someone gets in.

a asphyxiation **b** entanglement **c** drowning **d** electrical shock

3 Which one is NOT a precaution taken before doing a high-risk work on board?

a filling in a permit-to-work form
b carrying out a detailed risk assessment
c wearing PPE appropriate to work
d informing the ship owner about the work

4 You have to wear a safety harness when you work _____.

a in the galley **b** in a confined space **c** aloft **d** near a running machinery

5 The crew and the passengers gather at the _____ in case of an emergency.

a accommodation **b** deck **c** bridge **d** muster station

6 _____ signals and messages must be sent as soon as a marine accident occurs.

a radio **b** safety **c** distress **d** communication

7 The crew consider about emergency situations, precautions and their planning at a _____ meeting.

a safety **b** emergency **c** drill **d** training

8 A/An _____ suit keeps you warm in cold water.

a inflatable **b** immersion **c** thermal **d** protective

9 _____ signal is a pyrotechnical equipment.

a distress **b** urgency **c** warning **d** smoke

10 Which of these words does NOT make a meaningful phrase: fire _____?

a hose **b** blanket **c** suit **d** hydrant

11 We can prevent _____ by stowing the cargo evenly and immobilising them.

a listing **b** sinking **c** grounding **d** collision

12 SART stands for _____ and rescue radar transponder.

a save **b** survive **c** signal **d** search

13 We use _____ only to put out combustible solid material fires.

a foam **b** water **c** powder **d** CO_2

14 Which is NOT one of the primary aims of first aid?

a maintaining the vital functions of the body
b eliminating life-threatening situations
c applying medicine
d helping the recovery of the casualty

15 Which one does NOT refer to the consciousness level of a patient?

a unresponsive **b** voice **c** active **d** pain

16 Which is NOT necessary to include in a first aid kit?

a medicines to calm down the casualty
b bandage
c plasters
d ointments

17 What does CPR stand for?

a cardiopulmonary recovery
b cardiopulmonary resuscitation
c cardiopulmonary revival
d cardiopulmonary revision

18 Which is not seen in a casualty with a full airway blockage?

a putting hands on the neck
b shortness of breath
c skin colour changing to purple
d coughing

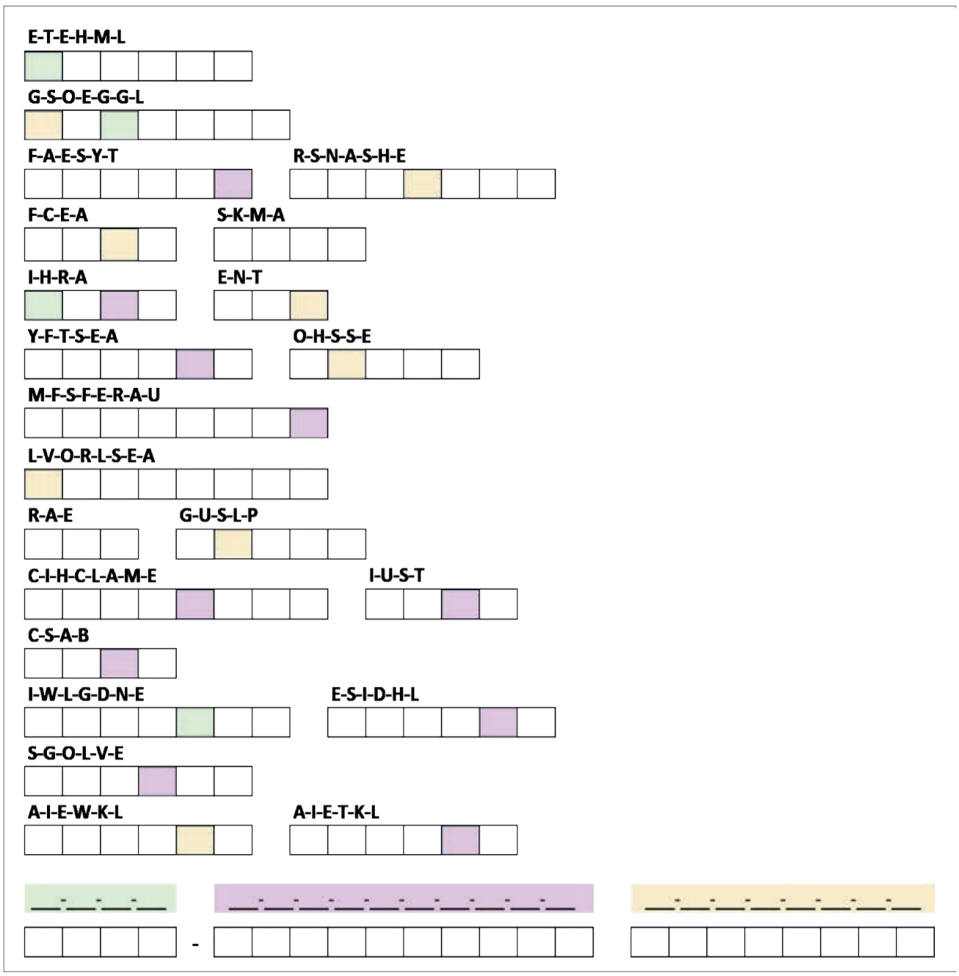
19 What is the first step to do in case of ancle sprain?

a Rest the injured limb.
b Ice the area.
c Compress the area with a bandage.
d Elevate the injured limb above the heart.

20 During a nosebleed, which position should you keep your head?

a Tilt backwards. **b** Tilt right. **c** Tilt forwards. **d** Tilt left.

B **Re-order the letters for PPE, and write them in the boxes. Then, find hidden phrase from the clues.**





UNIT 4

SEAMANSHIP

http://kitap.eba.gov.tr/KodSor.php?KOD=28486

- Get familiar with the maintenance operations on a vessel
- Learn the terms and equipment used in maintenance work
- Get familiar with the manoeuvring operations and areas on a vessel
- Practice sample conversations about manoeuvring
- Learn how to give and apply wheel orders and engine telegraph orders
- Get familiar with the log books and information recorded in them
- Learn how to fill out some records in log books

4A MAINTENANCE

I. LEAD IN

Maintenance is the act of keeping something in good condition by checking or repairing it. Maintenance operations can be carried out planned or unplanned.

- Why do you think maintenance of a vessel is important?
- What kind of reasons might cause unplanned maintenance operations?
- What kind of problems may occur if maintenance is not carried out properly?

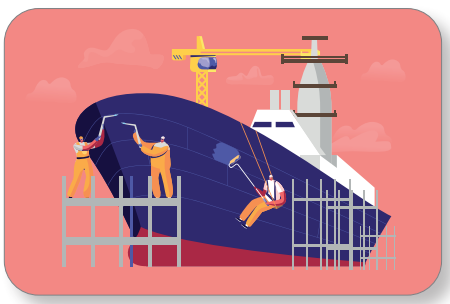


II. READING AND WRITING

A **Read the sentences below and complete the text with them.**

a It also enables to keep the records of maintenance procedures in one centre.
b In order to enable these qualities, a vessel's structural parts, machinery, main fittings and equipment should be checked and repaired regularly.
c Unplanned maintenance is carried out when a piece of equipment breaks down unexpectedly.
d For instance, communication equipment is weekly maintained while underwater hull maintenance is performed in every ten years.

VESSEL MAINTENANCE



Maintenance is a key factor to keep a vessel operational. It keeps the vessel in good condition and ensures its safety, effectiveness and endurance. **1** _____ There are also daily maintenance works such as cleaning, chipping, scraping, lubricating and painting. Maintenance can be carried out both on board and in the dockyard. There are mainly two types of maintenance: planned and unplanned.

Planned maintenance is a scheduled process that contains routine maintenance tasks according to Planned Maintenance System (PMS). In PMS, maintenance of any equipment and component is planned based on time or running hours. In other words, each equipment must be checked in certain intervals. **2** _____

PMS has many advantages. It enables to arrange the schedule of maintenance operations and keeps the equipment in good condition **3** _____ It provides easy access to any information needed for equipment. PMS helps to extend lifespan of vessels, keeps the equipment in good condition and reduces the costs of repairing operations and the possibility of an unexpected breakdown. **4** _____ As this type of a breakdown may cost much time and money, regular inspections and proper maintenance should be carried out before the fault occurs. While C/O is responsible for the maintenance in the deck, the engine room maintenances are under the responsibility of C/E.

B Find the synonyms of the highlighted words in Exercise A on Page 128.

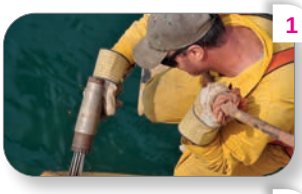
1	endurance _____	a	arranged
2	component _____	b	shipyard
3	interval _____	c	longevity
4	extend _____	d	failure
5	inspection _____	e	increase
6	breakdown _____	f	part
7	scheduled _____	g	check
8	dockyard _____	h	time period

C Write TRUE or FALSE next to the sentences according to the information in Exercise A on Page 128.

1 Maintenance is always carried out at port before loading. _____
2 Period of the maintenance may be different for each component of a vessel. _____
3 PMS contains information only about what to do in case of a breakdown or failure. _____
4 Chief engineer is responsible for all the maintenance work of a vessel. _____
5 PMS keeps records of maintenance of a vessel. _____

III. LISTENING AND VOCABULARY

A Re-order the letters of some maintenance operations and then draw lines to the correct pictures.


1

a n-i-r-u-n-b-k-g-e
bunkering

b g-i-n-n-u-d-o-s
_____


2


3

c p-i-n-g-h-i-c-p
_____


4

d a-n-l-e-c-g-i-n
_____


5

e c-a-r-s-i-n-g-p
_____


6

f a-n-t-i-p-i-g-n
_____


7

g h-c-e-k-c-n-i-g
_____


8

h r-i-t-a-c-u-l-b-i-n-g
_____

B **Listen to the definitions of maintenance operations given above and fill in the gaps with their names.**

http://kitap.eba.gov.tr/KodSor.php?KOD=37998

1 ***Bunkering*** is taking fuel into a vessel's oil tank.
2 _____ is applying oil on a mechanical part of a machinery to ease its movement.
3 _____ is measuring the depth of liquids by a special device.
4 _____ is removing the dirt or dust from various surfaces by using water, chemical solutions etc.
5 _____ is removing the rust from a metal surface by rubbing harshly via a scraping tool.
6 _____ is removing heavy rust from the metal surface by a hammer or a chisel.
7 _____ is coating and colouring a surface with paint.
8 _____ is examining something to see if it is correct, safe or acceptable.

C **Match the words to form meaningful collocations.**

1	painting _____	a	the steps of the pilot ladder
2	scraping _____	b	the deck floors
3	checking _____	c	engine parameters
4	lubricating _____	d	the rust on the railings
5	repairing _____	e	moving parts of a machine

IV. LANGUAGE

Present Perfect Simple

We use the present perfect simple **have/ has + past participle** to talk about …

- an action or a state that started in the past and in progress at the moment,
- a time period which has not finished
- recent events or actions

** Past participle forms of regular verbs take **-ed** to the end!*

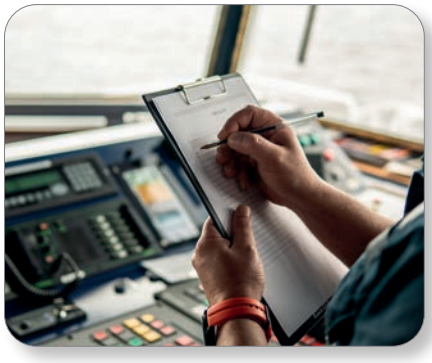
*** Be careful about the past participle forms of irregular verbs!*

- The A/B **has painted** the deck area this morning. (The paint is still wet.)
- They **have been** on a voyage for a week. (They started the voyage one week ago and they are continuing to travel.)
- Erdem **hasn't finished his project** yet. (He needs more time to hand it in.)
- **Have** you **seen** my purse? I can't find it anywhere. (I forgot where I put it.)

A **Write the required forms of the words on the table below.**

PRESENT	PAST	PAST PARTICIPLE
maintain	maintained	*maintained*
1 _____	was/were	been
catch	2 _____	caught
3 _____	hit	hit
keep	kept	4 _____
see	5 _____	seen
6 _____	swept	swept
swim	swam	7 _____
8 _____	lubricated	lubricated
paint	9 _____	painted
sound	sounded	10 _____

B **The Master is checking with the C/O and C/E if the crew have completed their duties or not. Ask questions about their tasks as in the example.**



• ~~Mop the floor in the messroom~~	✓
• Scrape the rust off the hatch covers	✓
• Wash the deck	✗
• Lubricate the wire ropes	✓
• Paint the ballast tanks	✓
• Check the engine parameters	✗
• Check the emergency fire pump	✗
• Practise a fire drill	✓
• Check life-saving appliances (LSA)	✓

e.g.*, *Has the steward mopped the floor in the messroom? Yes, s/he has.

1 _____?
_____. (able seamen)

2 _____?
_____. (ordinary seaman)

3 _____?
_____. (ordinary seamen)

4 _____?
_____. (able seaman)

5 _____?
_____. (2/E)

6 _____?
_____. (3/O)

7 _____?
_____. (the crew)

8 _____?
_____. (3/O)

V. LISTENING

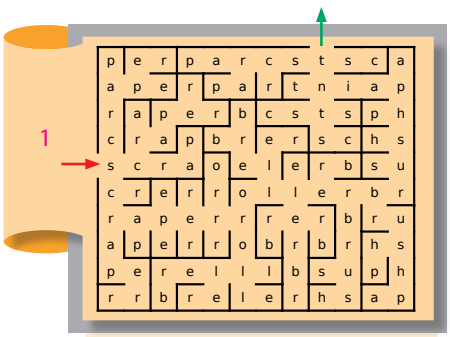
Listen to the recording of an ordinary seaman's daily routine and fill in the gaps with the correct information.

http://kitap.eba.gov.tr/KodSor.php?KOD=37999

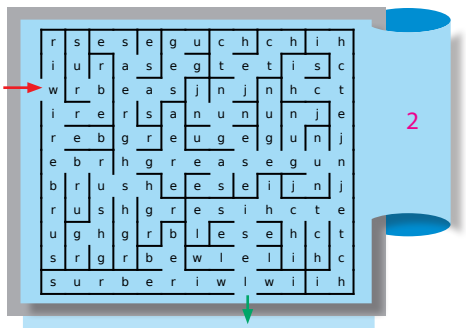
Hello! My name is _____ **1**. I am an ordinary seaman in M/V LUCKY JIM. Being a seafarer has been my biggest dream. I love being on board. My job is difficult, but enjoyable. We have a routine life and duties on the ship. I generally get up at _____ **2** a.m. After having a shower, I have breakfast at 7:15. Then, at 8:00 a.m. I wear my _____ **3** and start to work. My daily work includes cleaning and painting the decks, chipping and _____ **4** the rust on metal surfaces, lubricating the moving parts of the _____ **5**, and the deck machinery. Painting is one of the tasks that I like most. Around 12:15 p.m. I have lunch. I go back to work at _____ **6** p.m., and I work until _____ **7** p.m. Checking the damage and wear in various parts of the vessel is among my duties. I usually I keep watches on the bridge and other places. Watches are generally arranged_____ **8**. When I have free time I read a _____ **9** and play games with other crew members in the evenings. I generally go to sleep before 10:00 p.m. I have to sleep early because I mustn't be _____ **10** for the next day's work.

VI. WRITING AND VOCABULARY

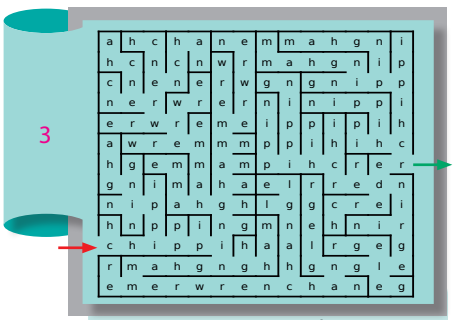
A **Write three maintenance equipment for each maze by finding the correct path.**



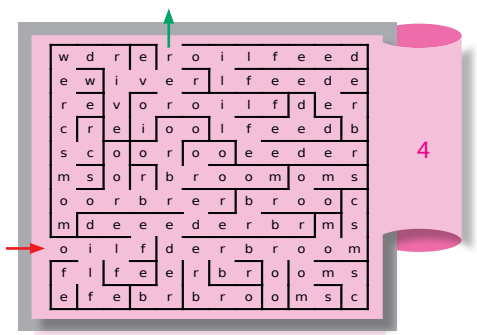
a s__ __a__ __r
b r__ __l__ __ b__ __ __h
c p__ __n__



d w__ __e b__u__ __
e g__ __ __s__ g__n
f j__ __ c__ __s__ __



g c__ __ pp__ __g ha __ __ __r
h w__ __ __ __h
i a__ __ __e gr __ __d__



j o__ __ f__e__ __r
k b__ __o__
l s__ __ __w d__ __ __ __r

B Choose the correct words from Exercise A on Page 132 and write them under the photos.


1 _____


2 _____


3 _____


4 _____

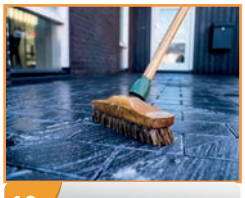

5 _____

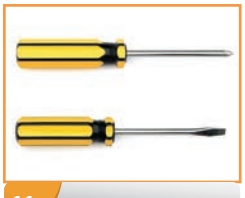

6 _____


7 _____


8 _____


9 _____


10 _____


11 _____


12 _____

C Write two maintenance equipment from Exercise B next to the related verbs.

1 scrape _____ _____

2 repair _____ _____

3 paint _____ _____

4 chip _____ _____

5 lubricate _____ _____

D **Circle the correct maintenance tool in bold.**

1 The crew should make sure that the railings are dry and clean before applying any **cleaning solvent/ paint** on them.
2 A **wire brush/roller brush** is used to apply top coating on surfaces.
3 A **scraper/wrench** is used to tighten or loosen a nut.
4 An **oil feeder/angle grinder** is used to lubricate moving parts of the machinery.
5 A **roller brush/broom** is used to clean the floors.
6 We use a/an **angle grinder/grease gun** when we need to lubricate the machinery parts that is hard to reach.
7 A **scraper/screw driver** is a tool that is used to remove the rust on metal surfaces.
8 A **jet chisel/grease gun** is used to chip the old paint, heavy rust, or other rough residues on metal surfaces.
9 A/An **jet chisel/angle grinder** is a power device that is used on variety of metal work such as cutting, scraping, polishing depending on the tool used with it.
10 A jet chisel is a more practical alternative to a **chipping hammer/scraper** when removing heavy rust and on metal surfaces.

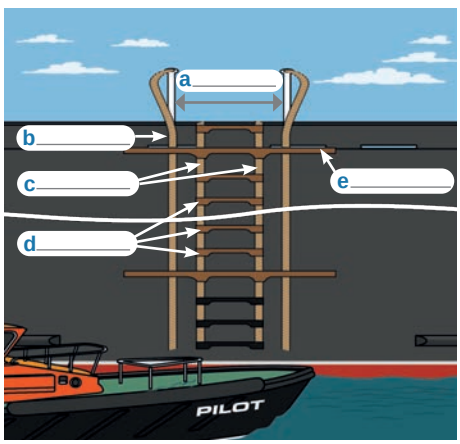
VII. READING AND VOCABULARY

A **Match the words with their definitions in Part 1 and write the names of pilot ladder elements into the boxes in Part 2.**

PART - 1

1 **spreader** _____	a a fixed vertical bar or pole (stick) used as a support for something
2 **handhold stanchion** _____	b an object used for spreading the ropes of the ladder for safety
3 **bulwark ladder** _____	c a surface that you put your foot on in order to walk to a higher or lower level
4 **side ropes** _____	d the ladder that enables safe access from bulwark to ship deck
5 **man-ropes** _____	e the two ropes of a ladder connecting a step
6 **step** _____	f two ropes for the immediate use at either side of a pilot ladder. They are not connected with steps

PART - 2





B **Choose the correct words to complete the collocations used in the sentences describing the maintenance operations of a pilot ladder and combination arrangement.**

ladder	bulwark	damaged	ropes	water	winch	wear	stanchions

1 The _____ **conditions** of the ropes used along the pilot ladder is checked. Worn out ropes are replaced.

2 It is checked if the distances between the steps and the spreaders of the **pilot** _____ are standard.

3 It is checked if the **handhold** _____ are straight and even. The crooked ones are straightened.

4 The physical condition of the man-ropes tied to the handhold stanchions is checked. **Worn out** _____ are replaced.

5 _____ **steps** of the pilot ladder are replaced.

6 The last four plastic steps of the pilot ladder over the _____ **surface**, which directly contacts to pilot boat, are checked, and replaced if they are damaged or worn out.

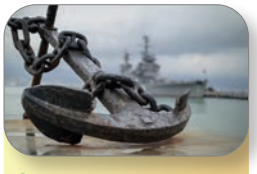
7 _____ **ladder** is scraped and painted if it is made of metal; it is polished if it is wooden.

8 Steel wire ropes of the pilot combination ladder connected to the _____ **reel** are lubricated, or they are replaced if necessary.

C **Write the correct word under the pictures.**

anchor	shackle	chain links	windlass


a _____


b _____


c _____


d _____

D **Read the sentences describing the maintenance operations of anchor and chain links carried out at the dry dock. Complete the sentences with the words in Exercise C.**

1 Measuring the wall thickness of _____. Links that do not have enough thickness are disconnected. Proper ones are scraped and painted.

2 Painting chains (all chain links) and chain links that show _____ length.

3 Scraping and painting the_____.

4 Checking the anchor _____ brake linings and replacing them if they are not functioning well.

LEARN THIS !

The length of each shackle is 27.5 m, each chain link in the 27.5 m is painted with a different colour and marked.

4B MANOEUVRING OPERATIONS

I. LEAD IN

Manoeuvring operations include steering, anchoring and mooring a ship. During these operations, the master or the watchkeeping officer gives a series of orders, and the operators act exactly as instructed. Standard manoeuvring orders are wheel orders, engine telegraph orders, mooring and anchoring instructions.

- Do you know the manoeuvring areas on a ship? What are they?
- Who do you think operates in these manoeuvring areas?

II. SPEAKING

Describe the photos below in groups. Give details about the operations, where the operations might take place and the people carrying out the operations.

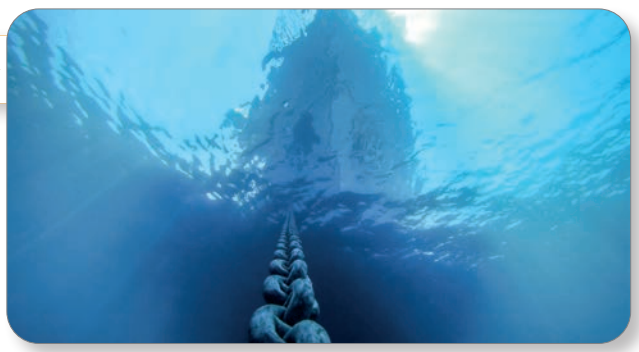
A



B



C



D



III. VOCABULARY

A **Read the sentences and fill in the blanks with the given words. Then match them with the photos in the Speaking Exercise on Page 136.**

anchoring	helmsman	steering	mooring

1 An A/B is taking wheel orders from the officer as the _____.
2 An A/B is preparing the lines before the _____ operation.
3 The ship is_____.
4 A deck cadet is _____ the ship.

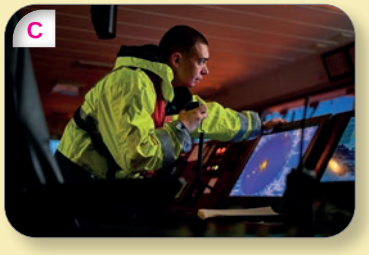
B **The table below shows the manoeuvring areas on a ship and the crew who carries out the manoeuvring operations. Study the table and complete the words for manoeuvring spaces on a ship.**

1 B__ __ __g__ R__ __m	2 F__ __ __c__ st __ __ D__c__	3 P__ __p D__c__	4 E__ __ __ __e C__n__ __ __l R__ __m
• The Master • 3/O • Deck cadet • Helmsman (A/B)	• C/O • Boatswain • A/B • O/S	• 2/O • A/B • O/S	• C/E • 2/E • 3/E • 4/E • Engine cadet

C **Re-order the jumbled words to form meaningful phrases, and then match the phrases with the photos.**







☐ Pilot _____ a – t – b – o
☐ Pilot _____ a – d – l – r – e – d
☐ _____ e – n – m – r – a – i pilot

WHEEL ORDERS AND ENGINE TELEGRAPH ORDERS

I. LEAD IN

The master or the watchkeeping officer gives **wheel orders** to the helmsman. The helmsman repeats the order, fulfils it, and reports that s/he has fulfilled it. Similarly, the master gives **engine telegraph orders** to the watchkeeping officer in charge, or the chief engineer. The officer in charge or the chief engineer also repeats, fulfils and reports that s/he has carried out the order.

- What do you think wheel orders are about?
- Have you ever seen an engine telegraph? What do you think it is used for?

II. READING AND WRITING

A **Read the definitions, and write the words for the devices used in manoeuvring operations from the box.**

helm/ wheel	lever-type engine order telegraph	magnetic compass	steering indicator	gyro compass	pushbutton engine order telegraph

1 A _____ indicates the direction of the ship using the magnetic effect.

2 A _____ is used to steer the vessel.

3 A _____ is used to communicate the ship's speed between the bridge and the engine room. It is mechanical with a lever.

4 A _____ shows the degrees of the rudder to starboard or port.

5 A _____ indicates the direction of the ship using electrical power.

6 A _____ is a device with buttons, and it is used to communicate the ship's speed between the bridge and the engine room.

B **Write the names of the devices from Exercise A under the photos below.**


1_____


2_____


3_____


4_____


5_____


6_____

C Read the wheel (helm) orders and their meanings below, and write the missing wheel orders.

Port five	**Hard-a-starboard/ Hard to starboard**	**Steady as she goes**
Nothing to port	**Starboard ten**	**Ease to twenty**

	Nothing to starboard	Don't allow the vessel's head to go to starboard.
	Meet her	Check the swing of the vessel's head in a turn.
1	_____	Hold the rudder fully over to starboard.
	Steady	Reduce swing as rapidly as possible.
2	_____	Hold the rudder 5° of port.
	Hard-a-port/Hard to port	Hold the rudder fully over to port.
3	_____	Reduce amount of rudder to 20° and hold.
4	_____	Don't allow the vessel's head to go to port.
	Ease to five	Reduce amount of rudder to 5° and hold.
5	_____	Hold the rudder 10° of starboard.
	Midship	Hold the rudder in the forward and after position.
6	_____	Steer a steady course on the compass heading.

D Read the engine telegraph orders, and match them with the required actions.

ENGINE ORDERS	WHAT TO DO?
1 Full ahead/astern _____	a Move forward/aftward slowly.
2 Half ahead/astern _____	b Don't keep engines operating anymore.
3 Slow ahead/astern _____	c Stop the engines.
4 Dead slow ahead/astern _____	d Move forward/aftward in half power.
5 Finished with engines _____	e Get ready to manoeuvre.
6 Stop engines _____	f Move forward/aftward in full power.
7 Stand by engine _____	g Move forward/rearward very slowly.

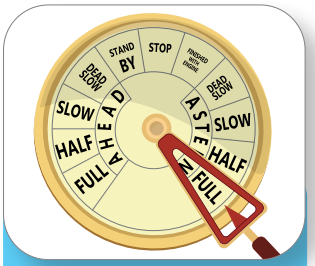
E **Write the engine telegraph orders under the pictures below using the information in Exercise D on Page 139.**



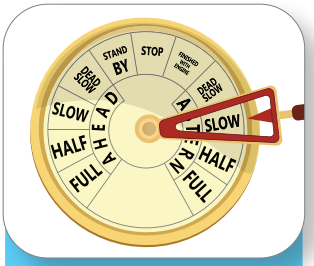
1 _____



2 _____



3 _____



4 _____



5 _____



6 _____

III. LISTENING AND SPEAKING

A **Listen to the conversation between the master of the ship and the pilot station before the pilot embarkation, and complete the table with the values.**

http://kitap.eba.gov.tr/KodSor.php?KOD=38000

1 The ETA (Estimated Time of Arrival) of the vessel to the pilot station:	
2 Maximum draught of the vessel:	
3 Freeboard height of the vessel:	
4 Maximum speed of the vessel:	
5 The speed will be reduced to:	

B Listen to the conversation in Exercise A again, and complete the sentences.

http://kitap.eba.gov.tr/KodSor.php?KOD=38000

1 The name of the vessel is _____.
2 The pilot will use _____ to embark the ship.
3 The vessel will arrive at the pilot station _____.
4 The pilot ladder will be rigged on the _____side.
5 The speed of the ship must be _____ for the pilot embarkation.

C Listen to the conversation among the pilot and the ship's crew including wheel and engine telegraph orders on board, and complete it with the given sentences.

http://kitap.eba.gov.tr/KodSor.php?KOD=38001

- hard to starboard
- dead slow ahead
- what's her speed
- port 20 degrees
- what's your heading
- midships now
- nothing to port
- steady as she goes

The master: Mr. Pilot, steering gear and engine have been tested. We are ready to leave the port.
Pilot: Ok, Sir.
Pilot: Dead slow astern, midships.
3/O: Dead slow astern.
Helmsman: Midships.
Pilot: Stop engine. ***Hard to starboard*** **1**.
3/O: Stop engine.
Helmsman: Hard to starboard … Hard to starboard now.
Pilot: _____ **2** … Midships.
3/O: Dead slow ahead.
Helmsman: Midships … _____ **3**.
Pilot: Slow ahead … half ahead … full ahead. _____ **4**?
3/O: Slow ahead … half ahead … full ahead. Speed's 10 knots.
Pilot: Port 20 degrees.
Helmsman: _____ **5** … Port 20 degrees now.
Pilot: Meet her … Midships ... _____ **6**?
Helmsman: Meet her … Midships … Midships now … My heading is 135 degrees.
Pilot: Very well. Steady 135 degrees.
Helmsman: Steady 135 degrees … Heading 135 degrees steady.
Pilot: _____ **7**.
Helmsman: Nothing to port.
Pilot: Okay. _____ **8** 135 degrees.
Helmsman: Steady as she goes 135 degrees.



D Listen to the conversation in Exercise C again, and practice it in groups of four.

ANCHORING

I. LEAD IN

Anchoring is mooring a ship to the sea bottom by an anchor to hold it in place.

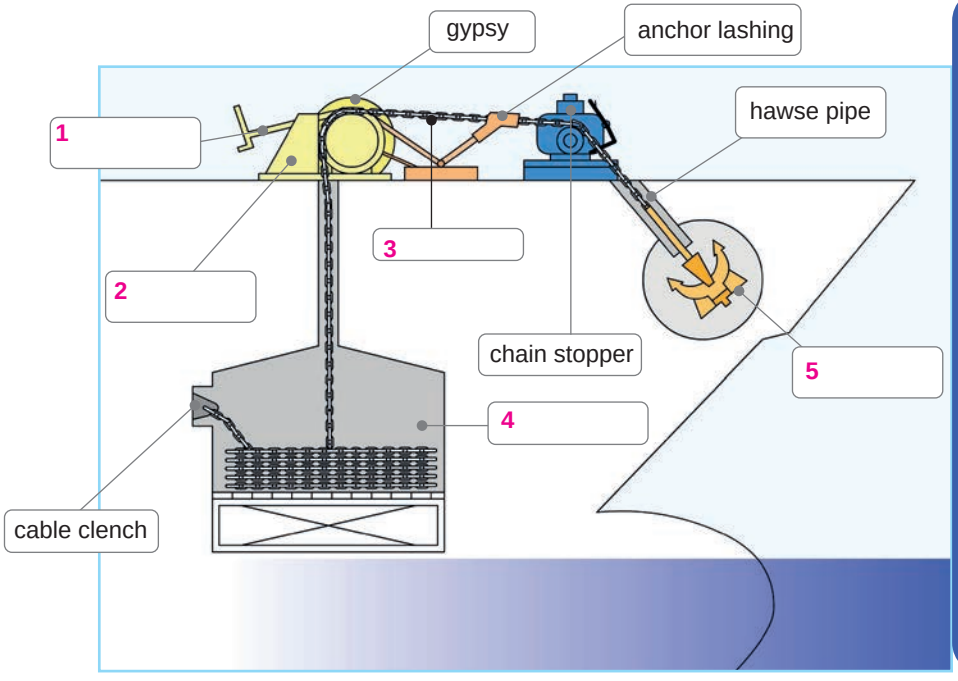
- Have you ever seen an anchor? What is it like? What parts does it have?
- How do you think a ship is anchored? What actions are taken?

II. READING AND VOCABULARY

A Match the words with their synonyms.

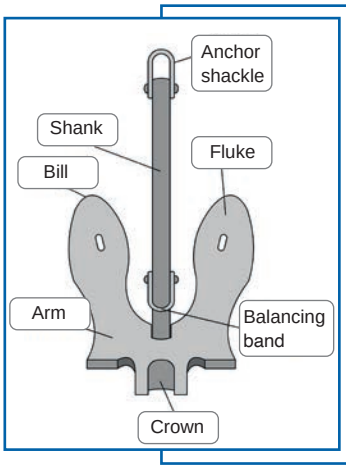
1	slack out ___	a	get ready
2	heave up ___	b	release
3	stand by ___	c	loosen
4	let go ___	d	lift up

B Look at the picture of the anchoring gear, and write the missing parts on the picture from the box on the right.



- anchor
- chain locker
- windlass
- brake
- chain

C **Study the parts of an anchor on the picture below, and write them in the blanks to complete the definitions on the right. Use the plural forms when necessary.**



1 _____ is stem of the anchor.
2 _____ is attached to the top end of the shank, and is used to attach chain or cable.
3 _____ is the lowest part of the anchor.
4 _____ are the branches connected to the bottom end of the shank.
5 _____ is attached to the shank to balance the anchor when it is lifted.
6 _____ are the ends of the anchor arms.
7 _____ are the tips of the flukes that digs the sea bottom when the anchor is dropped.

D **Read standard anchoring orders when going to the anchorage, and match them with their meanings.**

1 Stand by port/starboard anchor, or both anchors for letting go. ____
2 Let go the port/starboard anchor, or both anchors ____
3 Hold on the cable ____
4 Put (1, 2, 3, …) shackle(s) in water. ____
5 Slack out the cable(s) ____
6 Put the windlass in gear ____

a Loosen the cable(s).
b Prepare the windlass for operation.
c Be ready and wait for dropping the anchor(s).
d Drop the anchor(s).
e Keep the cable in its place.
f Put required amount of cable into the water.

III.LISTENING AND WRITING

A **Write the questions using the given words according to their answers.**

1 How _____?
The cable is leading **slack/tight**.

2 How_____?
The cable is growing **ahead/astern/to port/to starboard/up and down/round the bow**.

3 _____?
Yes, the anchor is **holding**./No, the anchor is **not holding**.

4 _____?
Yes, she is **brought up in position** …/No, she is **not brought up** yet.

B **Listen to the onboard conversation between the master and the chief officer during an anchoring operation, and write the orders and questions.**

http://kitap.eba.gov.tr/KodSor.php?KOD=38002

The master: Chief! We are going to the anchorage. Stand by at the forecastle deck.
C/O: Copy that, master.
The master: We will let go the starboard anchor. _____ 1
C/O: Copy that.
The master: Put the windlass in gear.
C/O: _____ 2
The master: Stand by for letting go the starboard anchor.
C/O: Standing by for letting go the starboard anchor.
The master: _____ 3
C/O: Letting go the starboard anchor…Third shackle is in the water, sir.
The master: Alright. Hold on the cable.
C/O: Holding on the cable.
The master: _____ 4
C/O: The cable is growing tight.
The master: Alright. _____ 5
C/O: Slacking out the cable one more shackle.
The master: _____ 6
C/O: Yes, the anchor is holding.
The master: How is the cable leading?
C/O: _____ 7
The master: Good work chief! Finish with manoeuvring station.

C **Listen to the onboard conversation again, and practice it with your partner.**

D **Listen to standard orders given when leaving the anchorage, and complete each of them with a verb you hear.**

http://kitap.eba.gov.tr/KodSor.php?KOD=38003

1 _____ by for heaving up.
2 _____ the windlass in gear.
3 _____ up port/starboard/both cable(s).
4 _____ heaving.

E **Listen and complete the questions asked when leaving the anchorage.**

http://kitap.eba.gov.tr/KodSor.php?KOD=38004

1 _____ cable is out?
2 _____ is the cable leading?
3 _____ weight is on the cable?
4 _____ shackles are left?

F **Listen to the answers to the questions in Exercise E, and circle the correct answer you hear.**

http://kitap.eba.gov.tr/KodSor.php?KOD=38005

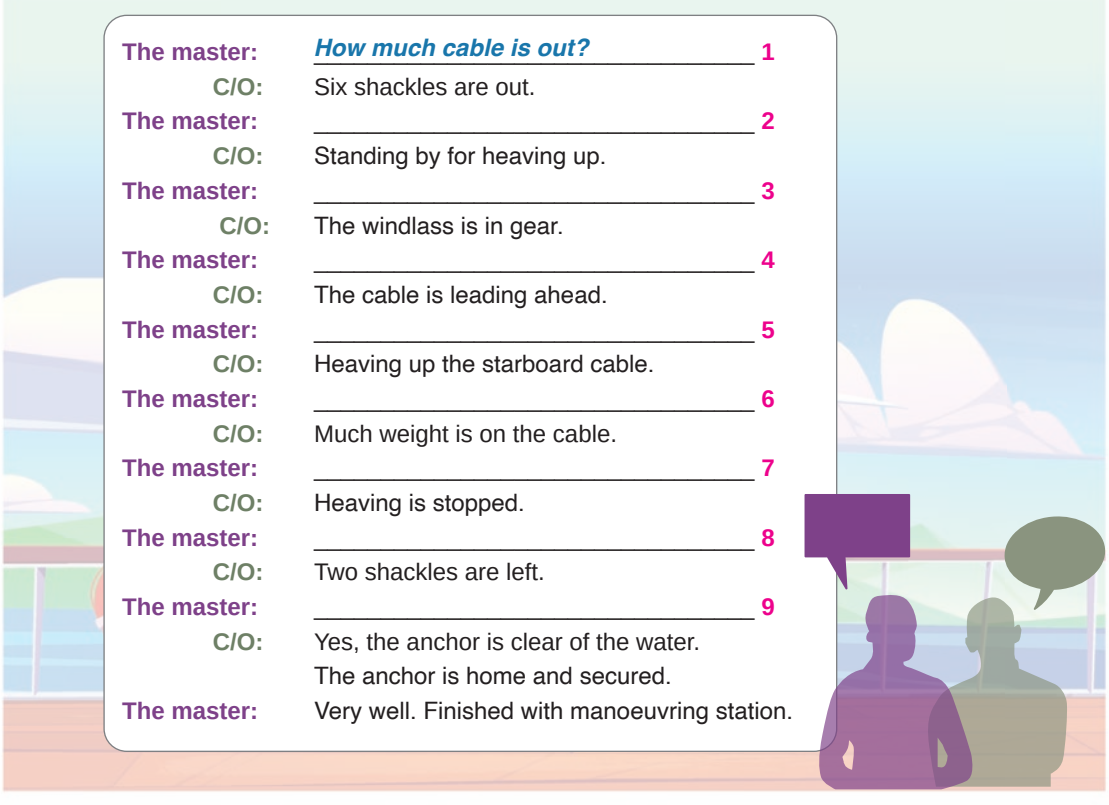
1 **Two/Three/Four** shackles are out.
2 The cable is leading **ahead/astern/to** port.
3 **Much/Too much/No** weight on the cable.
4 **Two/Three/Four** shackles are left.

G **Read the sentences and match the words in bold with what they mean in the anchoring terminology.**

1 The anchor is aweigh. ____	**a** in the hawse pipe.
2 The anchor is clear of the water. ____	**b** tied by the anchor lashing, and the chain stopper and the brake hold it.
3 The anchor is home. ____	**c** in a vertical position in the seabed.
4 The anchor is secured. ____	**d** has come out of the water completely.

H **Following dialogue is between the master of the ship who is on the bridge, and the chief officer who is on the forecastle deck when leaving the anchorage.**

Work in pairs, and write the orders and questions of the master. You can make use of the information in Exercises D, E, and F on Pages 144 and 145.



The master: *How much cable is out?* _____ 1
C/O: Six shackles are out.
The master: _____ 2
C/O: Standing by for heaving up.
The master: _____ 3
C/O: The windlass is in gear.
The master: _____ 4
C/O: The cable is leading ahead.
The master: _____ 5
C/O: Heaving up the starboard cable.
The master: _____ 6
C/O: Much weight is on the cable.
The master: _____ 7
C/O: Heaving is stopped.
The master: _____ 8
C/O: Two shackles are left.
The master: _____ 9
C/O: Yes, the anchor is clear of the water. The anchor is home and secured.
The master: Very well. Finished with manoeuvring station.

MOORING

I. LEAD IN

Mooring means making fast a vessel somewhere like a quay, pier, jetty, or a mooring buoy by means of a line.

- Have you ever seen a moored ship? How was it moored?
- Who do you think is involved in a mooring operation?

II. VOCABULARY

A **Work in pairs. Re-order the letters and write the names of mooring equipment.**



a-s-l-i-w-n-d-s _____1



o-l-l-b-a-r-d _____ 2



a-a-n-p-a-m _____ e-a-l-d _____3



c-a-e-t-l _____4



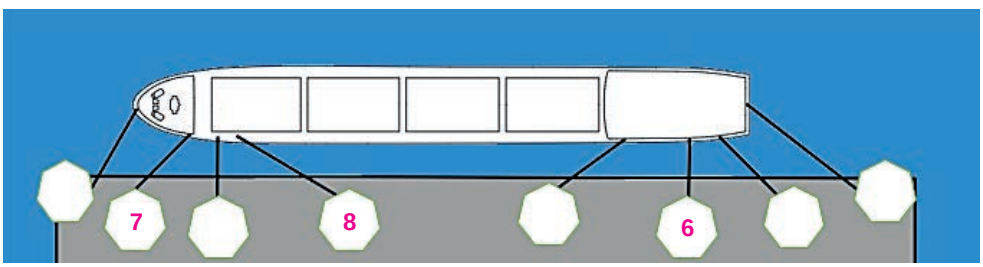
a-i-r-f-a-l-e-d _____ 5



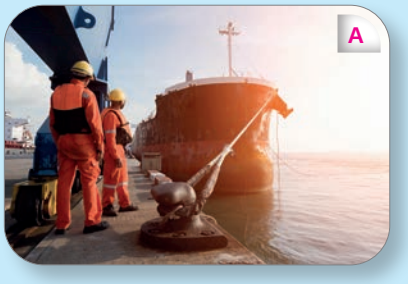
o-c-k-c-h _____ 6

B **Write numbers of the mooring lines given below on the picture.**

1 forward breast line | 2 quarter line | 3 stern line | 4 aft spring
5 head line | 6 ~~aft breast line~~ | 7 ~~bow line~~ | 8 ~~forward spring~~



C **Match the defined words with the photos.**







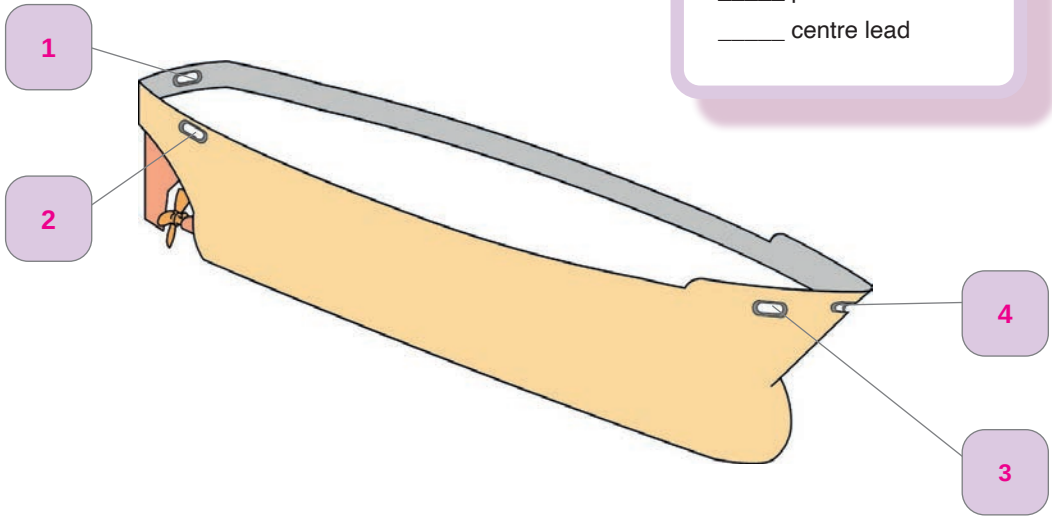
Heaving line: A line with a weight in one end that is used to send heavier mooring lines ashore. ___

Linesman: A person who assists ships to moor the lines at ports. ___

Mooring boat: A boat which help large ships to moor at ports by carrying the mooring lines. ___

D **The mooring lines are sent out through holes called leads when mooring a ship. Write the names of the leads on the picture below.**

_____ bow lead
_____ quarter lead
_____ panama lead
_____ centre lead



III. READING AND WRITING

A

Read the orders given during berthing operations, and write the definitions in the correct line.

a Stop pulling the line(s).
b We have completed the operation.
c Keep up the line(s) in its current situation.
d Pull the line(s).
e Throw the line(s)/spring(s) out of the ship.
f Strain and tighten the line(s).
g Fasten/Tie up.
h Loosen the line(s).
i Pull the line(s) slowly.
j The ship has been brought exactly to the planned position for mooring.

Mooring Orders (Berthing)	Meaning
1 Slack away the … line(s).	
2 Make fast.	
3 Send out the … line(s)/ … spring(s)	
4 Pick up the slack on the … line(s).	
5 Hold on the … line(s).	
6 Heave on the … line(s)/…spring(s).	
7 Heave in easy.	
8 Stop heaving.	
9 We are in position.	
10 Finished with manoeuvring station.	

B

Read the sample orders for unberthing operations, and match the underlined words with their meanings.

1 Stand by for letting go. ____
2 Single up the stern lines. ____
3 Let go the aft spring. ____
4 Cast off. ____

a Unmoor all lines of the ship ready to leave the berth.
b Get ready and wait for orders for unfastening mooring lines.
c Unmoor the aft spring.
d Leave only one stern line letting go all others.

IV. LISTENING AND SPEAKING

A **Listen to the master's briefing to the officer before a berthing operation. Find seven mistakes and correct them.**

http://kitap.eba.gov.tr/KodSor.php?KOD=38006



The master: We will berth at Liverpool Port, B4 Pier. We will berth starboard side by the help of the pilot boat, and we will use the mooring boat. We will first send the springs, and then the lines ashore in 3-2-2 order…
Chief, you will first send the forward spring ashore, and then send out the bow line through the panama lead.

C/O: Copy that, master.

The master: Second mate, you will first send the aft spring ashore, and then send out the quarter line through the centre lead.

2/O: Copy that, sir. Anything else?

The master: No, thank you. You can go to your manoeuvring areas.

B **Listen to the dialogue between the chief officer and the boatswain who are on the forecastle deck during the mooring operation. Write one or two words for each blank to complete the dialogue. Then, role-play the dialogue in pairs.**

http://kitap.eba.gov.tr/KodSor.php?KOD=38007

C/O: Bosun, have the _____ **1** ready forward.

Boatswain: Copy that, sir.

C/O: Send the _____ **2** ashore with the heaving line.

Boatswain: Sending the forward spring ashore.

C/O: The _____ **3** have made fast the forward spring … Pick up the slack on the forward spring.

Boatswain: Picking up the slack on the forward spring … The forward spring is _____ **4**.

C/O: Good. Send the head line to the _____ **5**.
Use the _____ **6** lead.



Boatswain: Sending the head line to the mooring boat.

C/O: _____ **7** the head line.

Boatswain: Slacking away the head line.

C/O: The linesmen have made fast the head line…
_____ **8** easy.

Boatswain: Heaving in easy.

C/O: _____ **9** the slack on the head line.

Boatswain: Picking up the slack on the head line … The head line is tight, sir.

C/O: Alright. We are _____ **10**. Hold on the forward spring and the head line … Send out all other lines.

Boatswain: Copy that, sir…Done!

C/O: Good work! Finished with manoeuvring station.

4B LOG BOOK RECORDS

I. LEAD IN

Records are kept in several journals on board. The general ship recording journals are deck log book and bell book on the bridge and engine log book in the engine room. Every officer of watch and marine engineer should fill out the required information about navigation and operations during and right after their watchkeeping.

- What kind of information do you think is recorded in log books?
- What can the recorded information be used for?

II. READING AND VOCABULARY

Recorded information in log books is very important for the safety of navigation and **legal** purposes because they have **evidential** value. They are used to clarify the facts about unexpected **incidents** or accidents during operations. The responsible officer must **submit** them to the authorities for **justification** in case of a **dispute** or when asked for general **inspection**. Deck log book is an official document with the information of all events affecting the management and running of the vessel. There are **records** of departure, arrival, weekly and monthly drills too. The master is responsible for keeping the deck log book legible and punctual on the bridge at all times.

A Match the highlighted words from the text with their definitions. Work in pairs and use dictionaries when necessary.

1 _____: written and stored information of an event for the future use
2 _____: an official argument or disagreement
3 _____: an acceptable or reasonable explanation of something
4 _____: providing proof for something to be true or not
5 _____: extraordinary or unpleasant events
6 _____: connected with the law; lawful
7 _____: to present a document or a report to an authority
8 _____: an official visit by experts or authorised people to check that everything is correct and legal

B Use the highlighted words to complete the sentences.

1 The burnt matches had _____ value, so the police put them in a plastic bag.
2 Do not change the plans because of this unfortunate _____.
3 A full _____ is needed to find out the reasons of the collision.
4 We have to _____ the necessary papers to the port officers on time in order to prevent any delays at departure.
5 It is a/an _____ obligation to put warning signs at some certain places on board.
6 The police cannot arrest anyone without any _____.
7 The _____ between the shipping companies will be taken to court.
8 We should write the weather _____ every hour during sailing.

C Complete the phrases with the given words. Then match the phrases with the abbreviations used in a bell book.

applicable	tanker	passage	commence
local	outward	board	engine

1	pilot on _____	a	FWE _____
2	drop _____ pilot	b	N/A _____
3	end of sea _____	c	POB _____
4	not _____/not available	d	COSP _____
5	finished with _____	e	M/T _____
6	_____ time	f	DOP _____
7	_____ of sea passage	g	EOSP _____
8	motor _____	h	LT _____

D Read the text below and fill in the missing information in the bell book.

M/T ASLAN, voyage number 05/22, navigates from Derince to Haydarpaşa. It berths at Haydarpaşa Port on May 11, 2022. the navigation equipment, steering gear and machinery are tested and ready for manoeuvring at 1300 LT. The pilot embarks the ship from the starboard side at 1400 LT. Under normal circumstances, end of sea passage time is recorded as 1400 LT. The rope of Koca Yusuf tug is made fast from the centre lead at 1420 LT. The first line is given to the shore at 1500 LT. The tug rope is let go and the tug leaves at 1530 LT. Finished with engine command is given at 1550 LT. The manoeuvre is completed and at the same time the pilot disembarks the ship at 1600 LT.

Ship's name		**M/T ASLAN**		**Voyage number**		**1** _____	
Port/Anchorage/Canal/Lock/Shifting		PORT		**Date of manoeuvring**		**2** _____	
Stand by engine		N/A		**Navigational equipment tested**		**3** _____ LT	
Engine tested		1300 LT		**TUG fast**		**4** _____ LT	
Steering gear tested		1300 LT		**TUG left**		**5** _____ LT	
POB	**6** _____ LT			**TUG Name**		**7** _____	
DOP	**8** _____ LT			**Coming from Departing to**		**9** from Derince to _____	
EOSP	1400 LT	**First line ashore**	1500 LT	**All fast**	1600 LT	**FWE**	**10** _____ LT
Anchored	N/A	**Shackles in water**	N/A	**Anchor port and starboard**	N/A	**FWE**	N/A
Single up	N/A	**Cast off**	N/A	**Out breakwater**	N/A	**COSP**	N/A
Stand by engine	N/A	**Heave up anchor**	N/A	**Anchor clear**	N/A	**COSP**	N/A
Entered lock		N/A		**Out of lock**		N/A	

M A I N E N G I N E							
ASTERN				**STOP**	**AHEAD**		
FULL	**HALF**	**SLOW**	**DEAD SLOW**		**DEAD SLOW**	**SLOW**	**HALF**	**FULL**
-SEE ENGINE TELEGRAPH RECORDER-							

E **Complete the deck log book extract according to the text in Exercise D with the given words.**

disembarked	**left**	**starboard**	**command**	**steering**
navigation	**voyage**	**centre**	**embarked**	**station**

_____ **1** No: 5/22 Ship: M/T ASLAN

Year: 2022 Month: May Day: from 11th to 12th

HOUR	JOURNALS	WATCH OFFICER SIGNATURE
11.00	……	
12.00	……	
13.00	Navigation equipment, _____ **2** gear and machinery are tested and ready for _____ **3**. Approached Haydarpaşa pilot _____ **4**.	
14.00	Pilot (Mr. Ahmet Kara) _____ **5** the ship from the _____ **6** side. End of sea passage. At 1420, The Koca Yusuf tug rope is made fast from the _____ **7** lead.	
15.00	First line is given to the shore. At 1530, the tug rope is let go and the tug _____ **8**. At 1550, finished with engine _____ **9** is given.	
16.00	Completed the manoeuvre and the pilot _____ **10**. Finished with engine.	
17.00	……	

THE MASTER'S NIGHT ORDERS

Chief officer The master

F **Complete the phrases about Deck Log Book records with the words in the box to find out what is recorded in.**

embarkation	**commence**	**personal**	**buoy**	**end**
berthing	**checking**	**incidents**	**anchor**	**fuel**

Records During Sailing, Anchoring and Port Watches	
Changing of watch	Passing by _____ **5**, foreland, lighthouse
_____ **1** ropes during port watch	_____ **6** watch, controlling anchor
Reporting _____ **2** oil, lubricating oil, water barge boarding and unboarding information	Reporting the _____ **7**, disembarkation and _____ **8** information of the pilot
Details of rope manoeuvring while _____ **3** and unberthing	_____ **9** of sea passage (EOSP) time information
Records of main _____ **4** while loading and discharging the cargo	_____ **10** of sea passage (COSP) time information

G **Match the two parts to find out the phrases about other deck log book records.**

1 handing over the watch ___	**a** date and hour of the assigned crew
2 taking over the watch ___	**b** the stowed cargo
3 personal information of ___	**c** to the watch officer
4 embarkation and disembarkation ___	**d** births and deaths on board
5 damages to ___	**e** from the watch officer
6 crimes, disciplinary punishments, ___	**f** the signed on and off crew

III. WRITING AND SPEAKING

A1 **Complete the log book entries with the past simple form of the verbs.**

throw	~~**evacuate**~~	**sound**	**close**	**activate**	**lower**
record	**overflow**	**check**	**clean**	**muster**	**start**

1 _____ a Williamson turn manoeuvre
2 _____ the fire team
3 tank _____ during fuel transfer
4 _____ stability of the vessel
5 _____ fire alarm
6 _____ 'Not under command' shape and lights
7 _____ down a rescue boat
8 ***evacuated*** the cabins
9 _____ up the spill
10 _____ the valves
11 _____ a lifebuoy
12 controlled and _____ damage

4B LOG BOOK RECORDS

A2 **Write numbers of the log book entries from Exercise A1 under the incidents.**

FIRE IN ACCOMMODATION	OIL SPILL
COLLISION	**MAN OVERBOARD**

B **Complete the chart about log books with the given information.**

RECORDS	All fuel oil parameters
	Information of people embarking and disembarking the vessel
	Main engine and auxiliary engine parameters
	All solid waste parameters
	All communication and GMDSS operation records
	All the events and extraordinary incidents about governing of the ship → 1
REASONS	To prevent sea pollution by solid waste from the vessels
	To submit to the authorities for justification in case of any disputes → 2
	To show evidence in case of accidents or unexpected incidents due to manoeuvring
	To comply with international ship and port facility security code and increase safety on board
	To comply with international regulations about communication
	To prevent sea pollution by fuel oil from the vessels

THE RECORD BOOK	WHAT IS RECORDED?	WHY IS IT RECORDED?
DECK LOG BOOK	1 *All the events and extraordinary incidents about governing of the ship*	2 *To submit to the authorities for justification in case of any disputes*
ENGINE LOG BOOK	3 _____	4 _____
OIL RECORD BOOK	5 _____	6 _____
GARBAGE RECORD BOOK	7 _____	8 _____
RADIO/GMDSS LOG BOOK	9 _____	10 _____
ISPS VISITOR LOG BOOK	11 _____	12 _____

C **Study the chart and make sentences as in the example using the given verbs.**

RECORDS BEFORE DEPARTURE	RECORDS BEFORE ARRIVAL
1 Checking/Searching for stowaways 2 Navigation instruments and system test 3 Steering gear test 4 Engine test 5 Bow and stern draughts and amount of the loaded cargo	1 Navigation instruments and system test 2 Steering gear test 3 Engine test
WEEKLY RECORDS	**MONTHLY RECORDS**
1 Ship hygiene check 2 FFE and LSA equipment, emergency fire pump, emergency lighting, general emergency alarm system, lifeboats, engines, emergency generator tests and checks	1 Ship safety meetings 2 FFE and LSA equipment, emergency fire pump, emergency lighting, general emergency alarm system, lifeboats, engines, emergency generator tests and checks

e.g., ***Stowaway checks are carried out and recorded in the deck log book before each departure.***

PROJECT

Work in groups. Visit a ship and interview the master or an officer and a few crew members about seamanship operations and their routine work. Take notes about your observations, take photos and record videos. Prepare a presentation telling how seamanship operations take place on board according to your observations.

SELF ASSESMENT 4

I can talk about the maintenance operations on a vessel.	☺	😐	☹
I can tell the terms and names of equipment used in maintenance work.	☺	😐	☹
I can talk about the manoeuvring operations and areas on a vessel.	☺	😐	☹
I can make sample conversations about manoeuvring.	☺	😐	☹
I can understand and apply wheel orders and engine telegraph orders.	☺	😐	☹
I can tell the names of log books and information recorded in them.	☺	😐	☹
I can fill out some records in log books.	☺	😐	☹

REVISION 4

A Choose the correct option.

1 "Heave in easy" means_____.

a throw the line/spring gently
b pull the line/spring slowly
c loosen the line/spring
d keep the line/spring in its position

2 When you require the officer to be prepared and wait for dropping the port anchor, you give the order: "_____."

a Put the windlass in gear
b Stand by for letting go the port anchor
c Heave up the port anchor
d Let go the port anchor

3 _____ is an engine order.

a Hard-a-port **b** Midships **c** Dead slow astern **d** Meet her

4 "_____" is a wheel order which means hold the rudder fully over the port.

a Hard-a-port **b** Meet her **c** Steady **d** Hard-a-starboard

5 _____ is a part of anchoring gear.

a Fairlead **b** Cleat **c** Bollard **d** Gypsy

6 _____ is used for both anchoring chain and mooring lines.

a Cleat **b** Windlass **c** Bollard **d** Panama lead

7 The _____ is responsible for keeping the deck log book.

a Chief officer **b** Second officer **c** Third officer **d** Master

8 Complete the phrase: activate 'Not under_____' shape and lights.

a way **b** command **c** route **d** control

9 Solid waste records are found in the _____ log book.

a garbage **b** deck **c** GMDSS **d** engine

10 Ship safety meetings are recorded _____.

a daily **b** weekly **c** monthly **d** yearly

A **Use each word once in every row, column and 3x3 box to solve the word sudoku.**

lubricating	**cleaning**	**painting**
welding	**chipping**	**sounding**
scraping	**bunkering**	**checking**

	welding				cleaning		sounding	
		bunkering		lubricating		painting	welding	
				painting			bunkering	scraping
	painting		scraping		welding			
	chipping						painting	sounding
welding						chipping		cleaning
bunkering				welding			cleaning	
lubricating			checking				chipping	
painting				cleaning	scraping			

REFERENCES

- Akdoğan, Refik. English for the Merchant Marine, 2nd Ed. İstanbul: Lebib Yalkın Yayımları ve Basım İşleri A.Ş., 1999.
- Babicz, Jan. Wärtsilä Encyclopaedia of Marine Technology. Helsinki: Wärtsılä Corporation, 2015.
- Blakey, T.N. English for Maritime Studies, 2nd Ed. Cambridge: Cambridge University Press, 1987.
- Demir, Cengiz. Maritime English. İstanbul: Akademi Denizcilik, 2009.
- Grice, Tony. English for Mariners. Gelsenkirchen: Arbeitsbereich Linguistik, 2009.
- Maritime & Coastguard Agency, Code of Safe Working Practices for Merchant Seafarers. London: MCA, 2020.
- Küçükşahin, Fahrettin. Ansiklopedik Bilimsel ve Teknik Denizcilik Sözlüğü: Türkçe/İngilizce. İstanbul: Akademi Denizcilik, 2006.
- Küçükşahin, Fahrettin. Ansiklopedik Bilimsel ve Teknik Denizcilik Sözlüğü: İngilizce/Türkçe. İstanbul: Akademi Denizcilik, 2003.
- Öğütoğlu, Nedret. Essential Maritime English. İstanbul: Dergâh Ofset, 2006.
- Papaleonida, Paraskevis L. Maritime English Volume 1. Athens: Athens University, 2018.
- Papaleonida, Paraskevis L. Maritime English Volume 2. Athens: Athens University, 2016.
- Şahin, Ercüment and Fethi Yağız. SOLAS Training Manual Gemi Eğitim El Kitabı. İstanbul: Ege Basım, 2010.
- T.C. Millî Eğitim Bakanlığı. Mesleki ve Teknik Anadolu Lisesi Protokol Kapsamındaki Okullar İçin Anadolu Meslek Programı Denizcilik Alanı Çerçeve Öğretim Programı. MEB, 2022.
- T. C. Sağlık Bakanlığı, T.C. TÜRKİYE Hudut ve Sahiller Sağlık Genel Müdürlüğü. Gemiler için Tıbbi Rehber, 2.Baskı. İstanbul: No-bel Matbaacılık San. Tic. Ltd. Şti, 2015.
- Ülgen, Ümit and Can, Sevilay. Gemi İnşaatı-1. İstanbul: İTÜ Denizcilik Fakültesi, 2003.
- Zaloğlu, Mustafa. Gemici Dili. İstanbul: Türk Deniz Kuvvetleri Güçlendirme Vakfı Yayınları, 1988.

WEB REFERENCES

- https://www.britannica.com/technology/ship/Types-of-ships (Accessed 15.09.2021 10.15).
- https://www.txintlfreight.com/shipping-seafreight-cargo-ship-classifcation/ (Accessed 15.09.2021 10.25).
- https://www.shiplilly.com/blog/the-most-common-types-of-cargo-ships/ (Accessed 15.09.2021 10.35).
- https://portocargo.pt/en/all-about-different-types-of-maritime-vessels/ (Accessed 15.09.2021 10.45).
- https://www.tuscorlloyds.com.mx/types-of-merchant-vessel/ (Accessed 17.09.2021 14.30).
- https://www.maritimeinfo.org/en/Maritime-Directory/general-cargo (Accessed 17.09.2021 14.44).
- http://www.shippipedia.com/ships/ (Accessed 18.09.2021 17.21).
- https://www.imo.org/en/OurWork/Safety/Pages/PassengerShips.aspx (Accessed 19.09.2021 20.05).

- http://maritime-connector.com/wiki/offshore-vessels/ (Accessed 19.09.2021 23.04).
- http://www.fao.org/fishery/vesseltype/180/en (Accessed 20.09.2021 18.03).
- http://www.fao.org/fishery/vesseltype/140/en (Accessed 20.09.2021 18.11).
- http://www.shippipedia.com/ship-measurments/ (Accessed 28.09.2021 15.18).
- https://www.wartsila.com/encyclopedia/term/tonnage (Accessed 01.10.2021 10.45).
- https://safety4sea.com/cm-do-you-know-how-many-ranks-and-duties-exist-onboard/ (Accessed 08.10.2021 09.21).
- http://shipsbusiness.com/shipboard-organization.html (Accessed 11.10.2021 16.54).
- https://www.edumaritime.net/stcw-code (Accessed 15.10.2021 13.27).
- http://www.shippipedia.com/ship-measurments/ (Accessed 17.10.2021 11.36).
- https://www.collinsdictionary.com/ (Accessed 13.09.2021 14.13).
- https://www.merriam-webster.com/ (Accessed 13.09.2021 17.51).
- https://dictionary.cambridge.org/tr/s%C3%B6zl%C3%BCk/ingilizce/ (Accessed 13.09.2021 20.26).
- https://www.macmillandictionary.com/dictionary/ (Accessed 13.09.2021 19.51).
- https://www.oxfordlearnersdictionaries.com/definition/english/ (Accessed 13.09.15.36).
- https://dargeb.com/guverte-jurnali-ve-tutulmasi/ (Accessed 04.11.2021 01.30).
- https://wwwcdn.imo.org/localresources/en/OurWork/IIIS/Documents/Lessons%20learned%20English/III%201.pdf (Accessed 02.11.2021 10.55).
- https://www.denizcilikbilgileri.com/guverte-jurnalinde-bulunmasi-gereken-test-ve-kayitlar/ (Accessed 04.11.2021 01.45).
- https://denizcilerinsesiyiz.blogspot.com/2019/09/gmdss-jurnali-nasl-doldurulur-test-ve.html (Accessed 04.11.2021 01.58).
- https://wwwcdn.imo.org/localresources/en/KnowledgeCentre/IndexofIMOResolutions/AssemblyDocuments/A.918(22).pdf (Accessed 13.11.2021 10.23).
- https://www.maritime-executive.com/article/Seamanship-The-Forgotten-Factor-2014-09-02 (Accessed 16.11.2021 08.42).
- https://tc.canada.ca/sites/default/files/migrated/tp5021e.pdf (Accessed 20.11.2021 10.55). (Personal Safety On Ships)
- https://www.marineinsight.com/wp-content/uploads/2012/03/The_Ultimate_Guide_to_Personal_Safety_on_Ships.pdf (Accessed 20.11.2021 11.18).

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UNIT 1 SEAFARING ESSENTIALS

1A WHAT TYPE OF A VESSEL

CARGO CARRIERS

IV. LISTENING

1 *These ships can carry thousands of wheeled vehicles such as cars, trucks, lorries in a voyage. Careful stowage is very important for these ships to carry the vehicles without damage.*

2 *These vessels carry dry cargoes such as grain, sugar, coffee, ore etc. in bulk. They are loaded and discharged via spouts, conveyor belts and cranes with grabs. Cleaning and sanitising the cargo holds after changing their cargo is important for these vessels, because their cargo is unpackaged.*

3 *These are liquid cargo vessels. They carry chemical substances. They are loaded via pumps in ports. They have to comply with MARPOL, because they carry hazardous chemicals which can be a threat for marine life.*

4 *These cargo vessels transport live animals such as cows, hens, sheep. The animals should be fed and watered well enough during the voyage. Temperature adjustment and ventilation of their living spaces are also important.*

5 *These vessels carry perishable cargo such as dairy products, fruit, vegetables, meat, fish etc. The cargo must be frozen or chilled to be carried by these vessels. They must be fast to deliver the cargo to the buyer without spoiling it.*

6 *These vessels transport huge cargoes such as industrial machinery, locomotives, oil rigs. They can be semi-submersible and float their cargo in via ballast water. Stowage and cargo handling need an intensive care in these vessels.*

PASSENGER SHIPS

III. LISTENING AND READING

A *Two types of passenger ships are commonly used today: Ferries and Cruise Ships. Ferries carry passengers and vehicles for short cross-water passages on fixed routes. They have a regular schedule and a fixed fare. Cruise ships, on the other hand, are large passenger ships designed for pleasure trips. They navigate on cruise destinations with several stops along the coastline. They offer many onboard facilities like restaurants, theatres, swimming pools, fitness centres. They arrange voyages to many popular cruise destinations such as Mediterranean or Caribbean Islands. They must take safety precautions in full and they must always be ready for emergency situations. Safety equipment and medical supplies must be handy at all times in all passenger ships.*

IV. LISTENING AND WRITING

A *There is always a lot to do, so we have to work hard. Pollution prevention and safety precautions are very important, so the company we work for and port authorities often supervise us. That's why we have to deal with a lot of paper work all the time. We usually load the cargo by big pumps at ports, and it is pumped out by ship's own pumps at discharge points. After loading the cargo, we leave the port. We spend all our time preparing for the next cargo during the voyage. We wash the tanks, we drain the pipelines, we clean and dispose the waste water. Each operation must be under the supervision of an officer, so officers must keep watch during the voyage, in turns.*

B *We load the cargo in standard containers of 20 or 40 feet. The cargo loading time is shorter than other ships. That's why, we deliver the cargo faster, and we can do more voyages than other ships. You can carry almost everything that you can put in the containers in this ship. We usually load and discharge cargo at more than one port at a voyage. The stowage is very important, so we have to stow the cargo according to a plan. We must check each container carefully for its convenience to the stowage plan or for any damages. If there is a damage, we must officially report it. After loading, we must check the lashings. If the weather is bad, extra lashing might be needed.*

C *Our working conditions may seem easier, but it has its own difficulties. We work in clean uniforms; we see a lot of people and we visit a lot of ports. These are the advantages. However, we have a lot of extra responsibilities as we carry people. We have ship handling and passenger services units. I work at the ship handling unit. We are responsible for safe navigation of the ship. Passenger services unit, on the other hand, work very hard. They provide 7/24 service to the passengers. Their working conditions are almost the same as a large hotel. The staff need a special training and a certificate to work in these ships. With this certificate, they are required to know how to direct and control people, especially in emergencies.*

VI. LISTENING

A-B

Ahmet: *Look at the girl over there! Isn't she Elif?*
Erdem: *Yes, she is. Let's say hello.*
...
Ahmet: *Hi Elif. How are you?*
Elif: *Hi guys. Nice to see you! How are you?*
Erdem: *I am fine. I disambarked yesterday.*
Elif: *What was it like to be a cadet on a bulker, Erdem?*
Erdem: *It was fun. I learned many things while I was on board. The voyage is usually longer than other ships, and you have enough time at ports to see around. You do not earn much, tough.*
Ahmet: *What kind of work did you do?*
Erdem: *I assisted officers during watches. You have to do cargo amount calculations, read the draft, fill in the cargo documents and write the reports very carefully. Some other minor tasks can be given by the master. You still have enough spare time if you manage your time well.*
Elif: *That sounds nice.*
Erdem: *You got training on a Ro-Ro didn't you?*

Elif: *Yes. We had voyages between Pendik and Trieste four days a week. It is not easy to work on a Ro-Ro. The voyage is short and you don't have much time at ports; so, you have to load fast, but quite carefully. It can be dangerous if you make a mistake during the stowage. You are paid well enough on these ships, and I must admit that I learned a lot from the officers; but I was quite overwhelmed. Ahmet, you were on a container ship, weren't you?*

Ahmet: *Yes. Our working conditions were similar as you. We had short time at ports and we dropped in more than one port during a voyage. Cargo stowage and lashing is very important at a container ship, too. It was tiring for me as well, but, it was also fun. I had many friends and we had great time together.*

Erdem: *That's nice to hear that. Why don't we go to the café over there? It seems there is a lot to talk.*

Elif: *That suits me.*

Ahmet: *O K. Let's go.*

1B WHO WORKS ON BOARD

III. LISTENING AND VOCABULARY

A-B

I have the highest rank on board, and I represent the company or the ship owner. I am on duty 24 hours a day, because I am in charge of everyone and everything on board during navigation. I am responsible for the crew and the passengers' safety on board. I make sure that maintenance of the ship, cargo operations and emergency measures are handled according to the standards. Communications with the shore, reports and records are in my responsibility too, so I do a lot of paperwork. I need a lot of experience to do all this work.

C

DUTIES OF THE CREW

Deck crew is responsible for the navigation, cargo operations, mooring and anchoring operations. They maintain the hull, cargo spaces, cargo gear, safety equipment and deck fittings. Deck crew consists of deck officers and deck ratings. Deck officers fill out the deck log book related to their work during watchkeeping.

Engine crew is responsible for keeping the vessel's machinery operational all the time. They repair and maintain engines, propulsion system, pumps, winches, electrical power supply system, fuel oil system and technological devices such as freshwater generations, fuel treatment and garbage incineration systems. The engine department consists of marine engineers and ratings. Marine engineers are responsible for filling out the engine log book.

Catering crew prepare and serve the meals, and do the housekeeping on board. There are usually more crew members in the catering department of passenger ships than cargo carriers. Generally, a cook and a steward carry on the catering work on a cargo vessel.

II. LISTENING

A-B

SPEAKER 1*: I am the head of deck ratings. I am responsible for deck stores, maintenance and repairs of the hull and the deck equipment. I check anchoring and mooring operations and report to the chief officer about the work. In other words, I act as a bridge between the officers and the ratings. I am sometimes assigned as the helmsman.*

SPEAKER 2*: I am a well-trained and experienced member of the deck department. I maintain and repair the decks and superstructure. I handle life-saving appliances, cargo gear and pollution-prevention equipment. I also operate deck machinery and equipment during anchoring and mooring.*

SPEAKER 3*: I come after the second officer in the deck department. I assist the Chief Officer with the check and maintenance of fire-fighting and life-saving equipment. I keep 08:00-12:00 and 20:00-00:00 watches.*

SPEAKER 4*: I am at the beginning level as a seafarer, so I don't have high qualifications or much experience. I assist the Able Seaman during cargo operations and maintenance work. I also have some duties like cleaning, handling ropes, wires.*

SPEAKER 5*: I am the second person in charge of deck department. I am responsible for navigational operations and maintenance of the equipment on the bridge. I also update the charts and publications. I handle the port documents on behalf of the master when necessary. I keep 00:00-04:00 and 12:00-16:00 watches.*

SPEAKER 6*: I am the head of the deck department. I schedule the work on the deck and I supervise the deck crew frequently. I am responsible for onboard security, cargo handling and maintenance operations. I also check the condition of fire-fighting and life-saving equipment. I directly report to the master and take the command of the ship when necessary. I keep 04:00-08:00 and 16:00-20:00 watches.*

C

1. *I am the head of the deck department. I schedule the work on the deck and I supervise the deck crew frequently. I am responsible for onboard security, cargo handling and maintenance operations. I also check the condition of fire-fighting and life-saving equipment. I directly report to the master and take the command of the ship when necessary. I keep 04:00-08:00 and 16:00-20:00 watches.*
2. *I am the second person in charge of deck department. I am responsible for navigational operations and maintenance of the equipment on the bridge. I also update the charts and publications. I handle the port documents on behalf of the master when necessary. I keep 00:00-04:00 and 12:00-16:00 watches.*
3. *I come after the second officer in the deck department. I assist the Chief Officer with the check and maintenance of fire-fighting and life-saving equipment. I keep 08:00-12:00 and 20:00-00:00 watches.*

1C LIFE ON BOARD

GET TO WORK

III. LISTENING

A

Applicant: *Hello. I am Mustafa Akaydın. I am here to apply for the ordinary seaman position in your company.*

Personnel Manager: *Hello Mr. Akaydın. What is your capacity?*

Applicant: *I am an ordinary seaman.*

Personnel Manager: *Which school did you last graduate from?*

Applicant: *I am a high school graduate. I graduated in 2016.*

Personnel Manager: *Have you done your military service?*

Applicant: *Yes, sir. I did my military service in 2018.*

Personnel Manager: *Are you married?*

Applicant: *No, sir. I am single.*

Personnel Manager: *Do you know any foreign languages?*

Applicant: *Yes. I have got an intermediate level in English. I also know a little German.*

Personnel Manager: *What is your register port?*

Applicant: *My register port is Istanbul.*

Personnel Manager: *Do you have any experience?*

Applicant: *Yes, I do.*

Personnel Manager: *Which company did you work for?*

Applicant: *I worked for Kırlangıç Maritime, on M/V SAKA as an ordinary seaman.*

Personnel Manager: *How long did you work on that vessel?*

Applicant: *I worked from March, 2020 to November, 2020 … approximately 8 months.*

Personnel Manager: *Have you got necessary certificates for a seaman?*

Applicant: *Yes. I have got them all.*

Personnel Manager: *Are your documents valid?*

Applicant: *Yes. They are all valid.*

Personnel Manager: *OK. Fill in the application form, please. We will have a personnel change in a week. We'll probably call you back then.*

Applicant: *Oh! OK. Thank you.*

VI. LISTENING

A

D/C: *Good night, sir. Have a safe voyage.*

S/O: *You, too. Welcome cadet. Did you rest well?*

D/C: *Yes, sir. Thank you.*

S/O: *Very well, then. I will inform you about this watch when you get used to the darkness.*

D/C: *Okay, sir. I'm used it now. I'm listening to you.*

S/O: *There is no ship traffic and the weather is fine right now. There may be some traffic and the winds may rise within 1 or 2 hours. Read the master's night order book for the watch. We must be careful during the watch.*

D/C: *Okay sir. I am ready.*

UNIT 2 VESSEL STRUCTURE

2A GET TO KNOW YOUR SHIP

III. LISTENING

1 *Be careful! There are uncharted rocks ahead of you.*
2 *Keep clear of the wreck on your starboard abeam.*
3 *The tug is towing her towards the starboard quarter.*
4 *There is a buoy on your port bow.*
5 *A tanker is passing astern of the container ship.*
6 *I see a fishing boat on our starboard bow.*
7 *Look! There is a whale on port quarter.*
8 *We can see Cape of Good Hope is on our port abeam now.*

VI. LISTENING AND SPEAKING

Chief Officer: *Good afternoon, bosun. Do you know where the third officer is?*
Bosun: *Good afternoon, chief. He is on the lifeboat deck, maintaining the lifebuoys.*
Chief Officer: *Have you assigned the duties of the crew?*
Bosun: *Yes, sir. Everyone is at work. A/B Dixon is repairing the gangway and O/S Mitchell is assisting him.*
Chief Officer: *What about A/B Martin?*
Bosun: *He is on the poop deck. He is stowing the mooring lines. O/S Karim is washing the cargo tanks at the port side.*
Chief Officer: *Good. Where is the cadet?*
Bosun: *He is on the bridge. He is assisting the second officer.*
Chief Officer: *Very well. And what are you going to do?*
Bosun: *I am at the accommodation. I'm checking the watertight doors.*
Chief: *Have a nice working day, bosun.*
Bosun: *Thank you, chief.*

2B STRUCTURAL COMPONENTS

III. LISTENING AND READING

A-B

- *The keel extends from the bow to the stern along the hull. It is the backbone of the vessel. It supports the hull and holds all other things forming the skeleton.*
- *Frames cross the keel like ribs in human body. They support the hull together with the keel.*
- *Beams are attached to the top ends of frames. They support the hull against the pressure of the water from the sides.*
- *Brackets are metal joints. They connect frames and beams.*
- *Bulkheads are watertight walls. They provide isolated sections to protect the cargo from external effects and damage.*
- *The shell plating is the outer skin of a vessel usually made of steel. It encloses the hull and protects it from external effects like a shell.*
- *The bulbous bow is a bulb-like extension at the vessel's bow. It reduces pitching and protects the vessel's bow when there is a collision.*
- *Bulwarks form the sidewalls and rails around the decks. They prevent seawater entry and protect the crew or passengers against fallings from the deck.*
- *The double bottom consists of two watertight layers leaving a space between the inner bottom and shell plating. It prevents cargo holds and the engine room from flooding when there is a bottom damage. It also increases the longitudinal strength of the vessel.*
- *Floors are plates at the bottom with holes. They strengthen the ship to hold the weight of the cargo, the machinery, and the tanks. They also protect the ship against crashes.*
- *The sea chest is a box attached to the inside bottom of the shell. It has inlet valves and strainers to take seawater for various purposes such as ballast, cooling, or fire-fighting etc.*
- *Bilge keels are fin-like plates mounted at two sides of the vessel. They reduce rolling.*

2C WHAT ARE THERE ON BOARD?

IV. LISTENING AND READING

A – B

A *The propeller has curved, rotating shafts that transmit the power of the engine. It helps the ship move using this power. It is at the stern, close to the rudder.*

B *The funnel is like a chimney on the ship. It is at the after part, next to the accommodation. It is used to discharge exhaust gasses coming from the engines and generators.*

C *The windlass is a horizontal cylinder rotated by a mechanical power to let the anchor cable or the mooring line wind around it. It can be at the forecastle or at the poop deck. It is used for heaving up or letting go the anchor.*

D *The capstan is a vertical cylinder rotated by a mechanical power. It has the similar function with the windlass. It is usually at the poop deck.*

E *Cranes are large gears on cargo carriers. They help loading and discharging cargo.*

F *The anchor is a heavy object tied by the anchor chain, hanging from the hawse pipe. It is usually at the bow of the ship. It is used to moor the vessel to the sea bottom and hold it still.*

G *Hatch covers cover the cargo holds of a ship. They are designed to protect the cargo from external damage. Hatch coamings are like frames between the cargo holds and hatch covers. They provide watertightness.*

H *The rudder is a vertical device like a blade at the stern of the ship, next to the propeller. It is used to steer and manoeuvre the ship.*

I *The bow and the stern thrusters are like propellers enclosed by a tunnel. They ease moving to starboard and port sides and help manoeuvring. The bow thruster is at the bow and the stern thruster is at the stern.*

J *Masts are vertical posts on decks. They hold navigational lights, flags, radio antennas etc. The main mast is at the after part of the ship, on the bridge, and the head mast is on the forecastle deck.*

C

C/O: *Second Mate! Please be careful with the crane grabs during your watch. The operators are not working carefully. We don't want them to harm the cargo holds or the hatch coamings.*

2/O: *Alright chief. I'll contact the foreman if necessary.*

C/O: *A/B should also be warned to sound the ballast tanks properly during the ballast operation.*

2/O: *Roger that, sir. Thank you for the update. Good night!*

C/O: *Have a good watch!*

2 /O: *Hey A/B Stuart! Please sound the ballast tanks very carefully. Also, go and check the mooring lines at the forecastle deck and the poop deck in every half hour. There is a strong tide in this port. Use the windlass when necessary.*

A/B Stuart: *All right, sir.*

2D LET'S MEASURE OUR SHIP

III. LISTENING AND SPEAKING

A - B

WHAT WE MEASURE ON A SHIP?

Before a ship starts her navigation, several things are measured for various purposes. Measuring the depth and the height of a ship is necessary for having an idea about her buoyancy and stability with maximum permitted load. These values are also important for a safer voyage on shallow waters, and passing under bridges safely.

The measurement of the dimensions, including the length and the width of a ship is also important for the stability, safe manoeuvring in narrow canals, berthing and docking operations and determining the cargo capacity. Measuring the weight and the volume is also necessary when deciding how much load that she can carry safely.

C - D

VTS: *M/V WAVEBREAKER1 M/V WAVEBREAKER1 M/V WAVEBREAKER1! This is Messina VTS!*

M/V: *Messina VTS! This is M/V WAVEBREAKER1! OVER.*

VTS: *M/V WAVEBREAKER1! This is Messina VTS! What is your destination port and ETA? OVER.*

M/V: *Messina VTS! This is M/V WAVEBREAKER1! My destination port is Liverpool, UK; and my ETA is December, 5th at 1100 UTC. OVER.*

VTS: *M/V WAVEBREAKER1! This is Messina VTS! What is your LOA and beam length? OVER.*

M/V: *Messina VTS! This is M/V WAVEBREAKER1! My LOA is 190 metres and beam length is 14,5 metres OVER.*

VTS: *M/V WAVEBREAKER1! This is Messina VTS! What is your LBP? OVER.*

M/V: *Messina VTS! This is M/V WAVEBREAKER1! My LBP is 174 metres. OVER.*

VTS: *M/V WAVEBREAKER1! This is Messina VTS! What is your maximum draught? OVER.*

M/V: *Messina VTS! This is M/V WAVEBREAKER1! My maximum draught is 12 metres. OVER.*

VTS: *M/V WAVEBREAKER1! This is Messina VTS! What is your loaded and light displacement? OVER.*

M/V: *Messina VTS! This is M/V WAVEBREAKER1! My loaded displacement is 59.000 metric tons and light displacement is 30.000 metric tons. OVER.*

VTS: *M/VWAVEBREAKER1! This is Messina VTS! What is your deadweight? OVER.*

M/V: *Messina VTS! This is M/V WAVEBREAKER1! My deadweight is 50.000 metric tons. OVER.*

VTS: *M/V WAVEBREAKER1! This is Messina VTS! What is your gross and net tonnage? OVER.*

M/V: *Messina VTS! This is M/V WAVEBREAKER1! My gross tonnage is 32.000 and net tonnage is 17.000. OVER.*

VTS: *M/V WAVEBREAKER1! This is Messina VTS! Thanks for your co-operation and good watch. Please stand by on channel 11 and 16. OUT.*

UNIT 3 SAFETY AND EMERGENCIES

3A SAFETY FIRST

V. LISTENING AND WRITING

A

1 *confined space*
2 *slippery floor*
3 *electrical device*
4 *sharp tool*
5 *mooring operation*
6 *chemical substance*
7 *heavy weight*
8 *running machinery*
9 *cargo handling*
10 *excessive noise*

B

C/O: *You have to wear your safety helmet for your safety, Mr. Clark.*
A/B: *Oh! I am sorry sir. I have forgotten. I am wearing it right now.*
C/O: *Listen everyone! You must keep away from the snap-back zone throughout the operation.*
A/B: *Copy that sir!*
C/O: *Hey Bosun! Have you worn your protective gloves? The lines will harm your hands.*
Bosun: *I have them in my pocket, chief. I am wearing them now.*

C

1 *slippery or untidy floors*
2 *working near running machinery*
3 *cargo handling*
4 *embarking/disembarking*
5 *mooring areas*
6 *handling chemical substances*
7 *painting and cleaning*
8 *bunkering/working in oil tankers*
9 *working aloft*
10 *hot work*
11 *working in the galley*
12 *working with electrical machinery/devices*
13 *working in confined spaces*

D - E

Working aloft. *Some works on board require climbing up to heights such as the funnel, masts, cranes, or the outboard of the ship. They might be extremely dangerous; so, all possible risks must be assessed carefully. You will also need officer supervision and permit-to-work to work aloft. Additionally, it is one of the works that you shouldn't do on your own. Someone must watch you when you are working. You must inform the bridge before working on the main mast, because the radar and other electrical equipment must be switched off. Similarly, you must inform the engine room before working on the funnel. Don't work in bad weather conditions. Keep a lifeboat and a lifebuoy ready during the operations on the outboard. You must wear a safety harness to protect yourself against falling from the heights. Otherwise, you can fall into the water and drown, or you can injure yourself seriously. You might have bone fractures, bruises, or even*

serious traumas that threaten your life. You must also wear a safety helmet to protect your head, and you might need different types of equipment such as bosun's chair or safety net according to the area you are going to work. All the equipment must be checked before using, and they must be in good condition.

Working in confined spaces. *Working in confined spaces such as cargo holds, cargo tanks, pump rooms, oil and water tanks need utmost attention since it might cause serious health problems or even loss of life unless necessary precautions are taken. It is one of the working areas that you will need permit-to-work, officer supervision and additional risk assessment. Oxygen level and gas content must be checked to prevent gas poisoning or asphyxiation. Poor ventilation may cause serious health problems; so, the space must be ventilated well before entering in. If there is electricity, the confined space must be insulated. There must be adequate lighting to avoid accidents. Appropriate PPE must be worn and SCBA must be kept ready, as well. Even if you have taken all necessary actions, someone must wait you outside, and you must keep contact via a walkie-talkie or another radio device for immediate actions in emergency. Finally, recovery and rescue equipment must be in good condition and ready in place.*

G – H

1 ***SPEAKER 1:*** *You need to be a trained operator to do this work and an official permission is required; so, you will need to fill in a permit-to-work form. Make sure that you have worn your welding shield properly; otherwise, sparks or UV rays can harm your eyes or face. You must wear heat-resistant gloves to protect your hands from burns. It is very important to unplug the electrical devices and machines nearby before you start working, or you might cause a fire on board.*

2 ***SPEAKER 2:*** *You need to be authorised and certificated to do this type of work. Check any leakage of electricity before you start your work with an electrical machine or device. Don't forget to unplug the device when in not use. If you have cut the power off before you start working, put a warning sign near the switch to stop anyone that might switch it on again as you are working. Working with electricity unattentively might cause electrical shocks or, even fire; so, be very careful with it.*

3 ***SPEAKER 3:*** *You might fall into the water and drown, or get injured seriously if you get on or off a ship without following the safety rules. First of all, a lifebuoy and a safety net should be kept ready in case someone falls. Use the gangway or accommodation ladder to get on and off the ship, and hold the handrails with both hands to protect yourself from falling.*

4 ***SPEAKER 4:*** *Some paints or cleaning solvents might be toxic and inhaling them might cause poisoning. Skin and eye irritation are other injuries when working with these substances. Wear a face mask and goggles, don't inhale the cleaning solvents or paints while painting or working on board and ventilate the area very well. Secure away paints, cleaning solvents and tools when the work is finished.*

5 ***SPEAKER 5:*** *Hot or sharp tools, electrical appliances and cooking oil might always create a risk for accidents and injuries. Cuts, burns, slips, trips, electrical shock and fire are the common accidents that you are face to face when working in the galley. Wear an apron, proper protective gloves and non-slip shoes to*

protect yourself against injuries. Secure all sharp tools such as knives and forks when you finish using them. Be careful when working on the hotplate and be alert when using electrical appliances. Don't operate them when your hands are wet. Make sure you know the location of fire-fighting equipment and how to operate them.

1 ***Working with the running machinery:*** *When working with the machinery a number of risks might occur. Entanglement might cause serious injuries such as bruises, fractures, or even loss of limb; so, stay away from the working machinery. Tie long hair and wear a safety hair net if you have to work close to a machinery that is working. Cut the power of the electrical machines off, and close the valves of the lines during maintenance. Some machinery can work too loudly. Being exposed to excessive noise may cause hearing disorders or hearing loss. A warning sign must be placed near this type of machineries and you should wear earmuffs or ear plugs when working with them.*

2 ***Mooring areas:*** *If the mooring area is untidy, you can trip or get entangled with the equipment, and fall. Falling might end in very painful bruises or fractures. Tripping or entanglement can cause even more serious problems like life-threatening traumas, loss of limb, or falling into the water and drowning. Therefore, mooring area must be tidied very well, and mooring lines must be stowed carefully after each use. use. You must wear a helmet, safety shoes and protective overalls when you are working in mooring areas. You must also stay away from the snap-back zone during the operation because mooring line snap-back can be very dangerous since the lines are sometimes very tense and they can hit very hard causing serious injuries, or even death.*

3 ***Working with chemical substances:*** *Touching chemicals without protective clothing, or inhaling chemicals is quite dangerous. Chemicals can cause skin irritation, eye injuries, or even poisoning if you don't take necessary precautions. First of all, you must wear a chemical suit, a SCBA, rubber gloves and safety shoes when working with chemicals. You should avoid inhaling chemical substances and check the tanks carefully to see if there is a leakage. You must also secure the lid of the container tightly and ventilate the area well. Medical first aid and fire-fighting equipment must be kept ready during the work. Chemical substances might also threaten marine life if there is a leakage. In this situation, you must stop the operation and clean the spill immediately.*

4 ***Slippery and untidy floors:*** *Slips, trips and falls are among the most frequently faced accidents on board. You might have bruises, bone fractures, or even serious traumas if you do not take precautions. All equipment must be put away from the deck, engine room or bridge floors immediately after the work is finished. Any spillage of oil or water must be cleaned soon, and warning signs must be placed when the floor is wet. You must watch your way all the time, and wear non-slip safety shoes to protect yourself from the accidents of this kind.*

5 ***Bunkering and oil work:****Oil tanks must be sounded and the pressure of the oil must be checked regularly during bunkering operation. Touching oil with bare hands might cause skin irritation. What is more, the spillage of oil can cause slips and falls which might end in serious injuries. Therefore, wear protective gloves, safety shoes and overalls while dealing with oil. Besides, oil spill might cause marine pollution which*

threaten marine life. Therefore, secure and clean the the area immediately if there is a spillage.

6 ***Cargo handling:*** *You have to work with huge cargo equipment like cranes in or out of cargo holds and cargo tanks during loading or discharging. Falling objects and crashing of the cargo equipment can cause head traumas, or other types of injuries like bruises or bone fractures; so, you must wear a safety helmet, safety shoes while handling the cargo. You mustn't stand under a lifted load anyway. Cargo-shifting is also a dangerous accident on board during navigation; therefore, lashings should be secured well. Back injuries are quite common on board so when lifting heavy weights, take the strength from your legs, not from your back. You shouldn't try to lift too heavy things on your own. Ask someone to help you when you have to lift them. It is better to have an accompany with you during cargo handling and wear high-visibility clothing so that you can be seen by the others who work around.*

J

1 ***Working with the running machinery:*** *When working with the machinery a number of risks might occur. Entanglement might cause serious injuries such as bruises, fractures, or even loss of limb; so, stay away from the working machinery. Tie long hair and wear a safety hair net if you have to work close to a machinery that is working. Cut the power of the electrical machines off, and close the valves of the lines during maintenance. Some machinery can work too loudly. Being exposed to excessive noise may cause hearing disorders or hearing loss. A warning sign must be placed near this type of machineries and you should wear earmuffs or ear plugs when working with them.*

2 ***Mooring areas:*** *If the mooring area is untidy, you can trip or get entangled with the equipment, and fall. Falling might end in very painful bruises or fractures. Tripping or entanglement can cause even more serious problems like life-threatening traumas, loss of limb, or falling into the water and drowning. Therefore, mooring area must be tidied very well, and mooring lines must be stowed carefully after each use. You must wear a helmet, safety shoes and protective overalls when you are working in the mooring areas. You must also stay away from the snap-back zone during the operation because mooring line snap-back can be very dangerous since the lines are sometimes very tense and they can hit very hard causing serious injuries, or even death.*

3 ***Working with chemical substances:*** *Touching chemicals without protective clothing, or inhaling chemicals is quite dangerous. Chemicals can cause skin irritation, eye injuries, or even poisoning if you don't take necessary precautions. First of all, you must wear a chemical suit, a SCBA, rubber gloves and safety shoes when working with chemicals. You should avoid inhaling chemical substances and check the tanks carefully to see if there is a leakage. You must also secure the lid of the container tightly and ventilate the area well. Medical first aid and fire-fighting equipment must be kept ready during the work. Chemical substances might also threaten marine life if there is a leakage. In this situation, you must stop the operation and clean the spill immediately.*

4 ***Cargo handling:*** *You have to work with huge cargo equipment like cranes in or out of cargo holds and cargo tanks during loading or discharging. Falling objects and crashing of the cargo equipment can cause head traumas, or other types of injuries like bruises or bone fractures; so, you must wear a safety helmet, safety shoes while handling the cargo. You mustn't stand under a lifted load anyway. Cargo-shifting is also a dangerous accident on board during navigation; therefore, lashings should be secured well. Back injuries are quite common on board so when lifting heavy weights, take the strength from your legs, not from you back. You shouldn't try to lift too heavy things on your own. Ask someone to help you when you have to lift them. It is better to have an accompany with you during cargo handling and wear high-visibility clothing so that you can be seen by the others who work around.*

3B MARINE ACCIDENTS AND EMERGENCIES

VI. LISTENING

A-B

CONVERSATION 1:

M/V FELIXIN: *PAN-PAN PAN-PAN PAN-PAN. ALL STATIONS. ALL STATIONS. ALL STATIONS. This is M/V FELIXIN. Position FOUR ONE DEGREES THREE ZERO MINUTES NORTH ZERO TWO NINE DEGREES ONE EIGHT MINUTES EAST. I have one injured person on board. I require medical assistance. Over.*

Bari radio: *M/V FELIXIN. This is Bari radio. What is the state of the injured person? Over.*

M/V FELIXIN: *Bari radio. This is M/V FELIXIN. He has serious injuries. There is massive bleeding. We cannot stop bleeding. Over.*

Bari radio: *M/V FELIXIN. This is Bari radio. I will send a helicopter with a doctor to pick up the injured person. Over.*

CONVERSATION 2:

M/V FAREND: *MAYDAY MAYDAY MAYDAY. This is motor vessel FAREND TANGO-CHARLIE-ALFA-ONE-EIGHT. Position FOUR ONE*
DEGREES THREE FIVE MINUTES NORTH- ZERO ONE EIGHT DEGREES ZERO SIX MINUTES EAST. Fire on board. Over.

Turk radio: *M/V FAREND . This is Turk Radio. Where is the fire? Over.*

M/V FAREND: *Turk radio. This is M/V FAREND . Fire is in the accommodation. Over.*

Turk radio: *M/V FAREND . This is Turk Radio. Is fire under control? Over.*

M/V FAREND: *Turk radio. This is M/V FAREND . No, fire is not under control. I require firefighting assistance. Over.*

Turk radio: *M/V FAREND . This is Turk Radio. Report injured persons. Over.*

M/V FAREND: *Turk radio. This is M/V FAREND . No injured persons. Over.*

Turk radio: *M/V FAREND . This is Turk Radio. Two fire-fighting tugs and a fire-fighting aircraft is coming to your assistance. Fire-fighting aircraft will reach you within ten minutes. Over.*

EMERGENCY PRECAUTIONS ON BOARD

IV. LISTENING

3/O: *Do you know where we keep the pyrotechnic equipment on board, cadet?*

D/C: *Yes, sir. They are ready on the bridge deck and in the lifeboats.*

3/O: *Let's check the pyrotechnical equipment on the bridge deck.*

D/C: *Okay. I think the equipment is in this cabinet.*

3/O: *Yes, they are. We will check the numbers and expiration dates of the equipment. Check and report the equipment to me.*

D/C: *Copy that, sir.There are 12 hand flares, 6 rocket parachute flares and 4 buoyant smoke signals. There are two months until their expiration dates.*

3/O: *Okay. We should note this. We must add them to the needs list next month.*

FIRE-FIGHTING

IV. LISTENING

A - B

C/O: *Bridge. This is fire team one. All team mustered at the muster station. Everybody wore their protective clothing.*

The master: *Fire team one. This is bridge. Did you shut the electricity and the ventilation of the fire area?*

C/O: *Bridge. This is fire team one. Yes, sir. We are waiting for your commands to intervene the fire in the galley.*

The master: *Fire team one. This is bridge. Enter the accommodations from the stern and start to extinguish the fire.*

C/O: *Bridge. This is fire team one. Yes, sir. We are entering the accommodations and beginning to extinguish fire.*

The master: *Fire team two. This is bridge. Start the boundary cooling of the accommodation.*

2/E: *Bridge. This is fire team two. Yes, sir. We are starting the boundary cooling of the accommodation.*

3C MEDICAL EMERGENCIES AND FIRST AID

IV. LISTENING

Try to understand if the casualty is conscious by asking in a loud but calm voice. You can also gently shake the casualty.

Check the breathing by placing your ear next to the casualty's mouth and nose and be sure that heart is beating by checking the pulse on the casualty's neck.

Check for bleeding by looking at her/his clothes or wounds.

Check for signs of shock such as sweaty but cool skin, thirst, quick breathing, vomiting etc.

Check for fractures by asking if s/he can move or feel her/his body parts.

See if there are burns on the casualty's body. If yes, you can cover them with a clean dry cloth.

Check for the signs of a head injury such as fluid from ears, nose, mouth or wounds to the head or face, as well as speech disorders.

UNIT 4 SEAMANSHIP

4A MANOEUVRING OPERATIONS

III. LISTENING AND VOCABULARY

B

1. *Bunkering is taking fuel into a vessel's oil tank.*
2. *Lubricating is applying oil on a mechanical part of a machinery to ease its movement.*
3. *Sounding is measuring the depth of liquids by a special device.*
4. *Cleaning is removing the dirt or dust from various surfaces of a vessel by using water, chemical solutions etc.*
5. *Scraping is removing the rust from a metal surface rubbing harshly via a scraping tool.*
6. *Chipping is removing heavy rust from the metal surface by a hammer or a chisel.*
7. *Painting is coating and colouring a surface with paint.*
8. *Checking is examining something to see if it is correct, safe or acceptable.*

V. LISTENING

Hello! My name is Erol. I am an ordinary seaman in M/V LUCKY JIM. Being a seafarer has been my biggest dream. I love being on board. My job is difficult, but enjoyable. We have a routine life and duties on the ship. I generally get up at seven a.m. After having a shower, I have breakfast at 7:15 a.m. Then, at 8:00 a.m. I wear my overalls and start to work. My daily work includes cleaning and painting the decks, chipping and scraping the rust on metal surfaces, lubricating the moving parts of the cargo gear and the deck machinery.

Painting is one of the tasks that I like most. Around 12:15 p.m. I eat or drink something. I go back to work at one p.m., and I work until five p.m. Controlling damage and wear in various parts of the vessel is among my duties. Sometimes I keep watches on the bridge and other places. Watches are generally arranged monthly. When I have free time, I read a book or play games with other crew members in the evenings. I generally sleep before ten p.m. I have to sleep early because I mustn't be tired for the next day's work.

4B MANOEUVRING

WHEEL ORDERS AND ENGINE TELEGRAPH ORDERS

III. LISTENING AND SPEAKING

A-B

The master: *Derince Pilot. This is Motor Vessel ASLAN. My ETA to the pilot station 1900 Local Time. Over.*

Pilot Station: *Motor Vessel ASLAN. Derince Pilot. What is your maximum draught? Over.*

The master: *Derince Pilot. Motor Vessel ASLAN. My maximum draught is 9 metres. Over.*

***Pilot Station**: Motor Vessel ASLAN. Derince Pilot. How many metres freeboard do you have? Over.*

***The master**: Derince Pilot. Motor Vessel ASLAN. I have about 7,5 metres freeboard. Over.*

***Pilot Station**: Motor Vessel ASLAN. Derince Pilot. Okay, captain. Pilot ladder will be rigged 1 metre above the water line, on starboard side. Over.*

***The master**: Derince Pilot. Motor Vessel ASLAN. Pilot ladder will be rigged 1 metre above the water line on starboard side. Over.*

***Pilot Station**: Motor Vessel ASLAN. Derince Pilot. What is your maximum speed? Over.*

***The master**: Derince Pilot. Motor Vessel ASLAN. My maximum speed is 12 knots. Over.*

***Pilot Station**: Motor Vessel ASLAN! Derince Pilot. The pilot boat is on the way. Reduce your speed to 6 knots. Over.*

***The master**: Derince Pilot. Motor Vessel ASLAN. Copy that. The speed will be reduced to 6 knots. Over.*

***Pilot Station**: Motor Vessel ASLAN. Derince Pilot. That's correct. Over.*

***The master**: Thank you, sir good evening. Out.*

C-D

***The master**: Mr. Pilot, steering gear and engine have been tested. We are ready to leave the port.*

***Pilot**: Ok, Sir.*

***Pilot**: Dead slow astern, midships.*

***3/O**: Dead slow astern.*

***Helmsman**: Midships.*

***Pilot**: Stop engine. Hard to starboard.*

***3/O**: Stop engine.*

***Helmsman**: Hard to starboard … Hard to starboard now.*

***Pilot**: Dead slow ahead … Midships.*

***3/O**: Dead slow ahead.*

***Helmsman**: Midships … Midships now.*

***Pilot**: Slow ahead … half ahead … full ahead. What is your speed?*

***3/O**: Slow ahead … half ahead … full ahead. Speed's 10 knots.*

***Pilot**: Port 20 degrees*

***Helmsman:** Port 20 degrees … Port 20 degrees now.*

***Pilot**: Meet her … Midships … What's your heading?*

***Helmsman**: Meet her ... Midships … Midships now … My heading is 135 degrees.*

***Pilot**: Very well. Steady 135 degrees.*

***Helmsman**: Steady 135 degrees … Heading 135 degrees steady.*

***Pilot**: Nothing to port.*

***Helmsman**: Nothing to port.*

***Pilot**: Okay. Steady as she goes 135 degrees.*

***Helmsman:** Steady as she goes 135 degrees.*

ANCHORING

III. LISTENING AND WRITING

B -C

The master:	*Chief! We are going to the anchorage. Stand by at the forecastle deck.*
C/O:	*Copy that, master.*
The master:	*We will let go the starboard anchor. Put three shackles in the water.*
C/O:	*Copy that.*
The master:	*Put the windlass in gear.*
C/O:	*The windlass is in gear.*
The master:	*Stand by for letting go the starboard anchor.*
C/O:	*Standing by for letting go the starboard anchor.*
The master:	*Let go the starboard anchor.*
C/O:	*Letting go the starboard anchor…Third shackle is in the water, sir.*
The master:	*Alright. Hold on the cable.*
C/O:	*Holding on the cable.*
The master:	*How is the cable growing?*
C/O:	*The cable is growing tight.*
The master:	*Alright. Slack out the cable one more shackle.*
C/O:	*Slacking out the cable one more shackle.*
The master:	*Is the anchor holding?*
C/O:	*Yes, the anchor is holding.*
The master:	*How is the cable leading?*
C/O:	*The cable is leading up and down.*
The master:	*Good operation chief! Finish with manoeuvring station.*

D

1. *Stand by for heaving up.*
2. *Put the windlass in gear.*
3. *Heave up port cable, starboard cable or both cables.*
4. *Stop heaving.*

E

1. *How much cable is out?*
2. *How is the cable leading?*
3. *How much weight is on the cable?*
4. *How many shackles are left?*

F

1 *How much cable is out?* - *Three shackles are out.*
2 *How is the cable leading?* - *The cable is leading ahead.*
3 *How much weight is on the cable?* - *Much weight on the cable.*
4 *How many shackles are left?* - *Two shackles are left.*

MOORING

IV. LISTENING AND SPEAKING

A

***The master**: We will berth at Southampton Port, B4 Pier. We will berth port side by the help of the tugboat, and we will use the mooring boat. We will first send the springs, and then the lines ashore in 4-2-2 order…*
Chief, you will first send the forward spring ashore, and then send out the head line through the panama lead.
***C/O:** Copy that, master.*
***The master**: Second mate, you will first send the aft spring ashore, and then send out the stern line through the centre lead.*
***2/O:** Copy that, sir. Anything else?*
***The master**: No, thank you. You can go to your manoeuvring areas.*

B

***C/O:** Bosun, have the heaving lines ready forward.*
***Boatswain:** Copy that, sir.*
***C/O:** Send the forward spring ashore with the heaving line.*
***Boatswain:** Sending the forward spring ashore.*
***C/O:** The linesmen have made fast the forward spring … Pick up the slack on the forward spring.*
***Boatswain:** Picking up the slack on the forward spring… The forward spring is tight.*
***C/O:** Good. Send the head line to the mooring boat. Use the panama lead.*
***Boatswain:** Sending the head line to the mooring boat.*
***C/O:** Slack away the head line.*
***Boatswain:** Slacking away the head line.*
***C/O:** The linesmen have made fast the head line… Heave in easy.*
***Boatswain:** Heaving in easy.*
***C/O:** Pick up the slack on the head line.*
***Boatswain:** Picking up the slack on the head line … The head line is tight, sir.*
***C/O:** Alright. We are in position. Hold on the forward spring and the head line … Send out all other lines.*
***Boatswain:** Copy that, sir… Done!*
***C/O:** Good work! Finished with manoeuvring station.*