

NAUTICAL ALPHABET





“Surakhani” ship museum for children

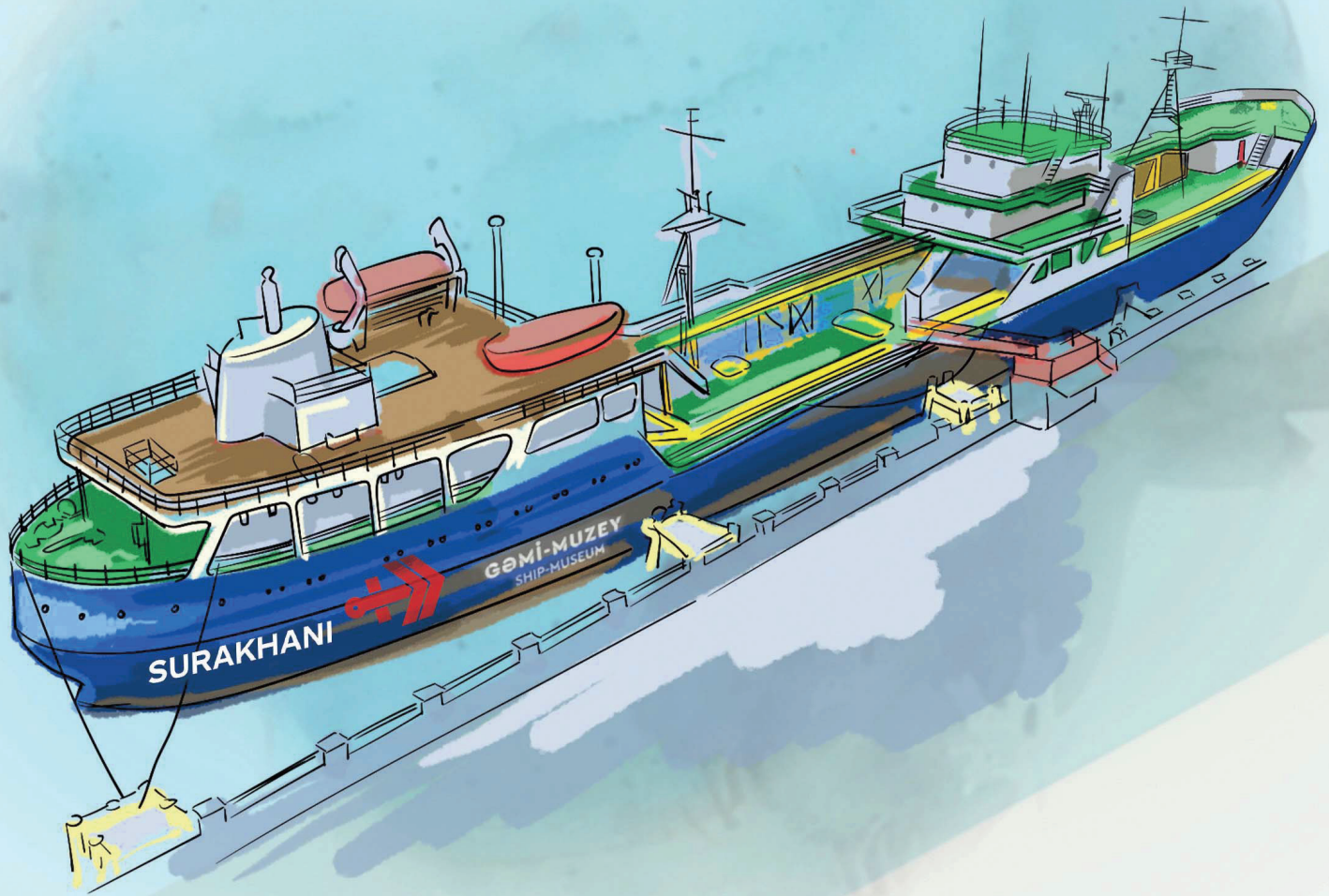
NAUTICAL ALPHABET

Baku – 2024



“Nautical Alphabet” prepared and elegantly printed by “Azerbaijan Caspian Shipping Company” (ASCO), differs from traditional alphabets. With this book, school kids will be able to travel to the mysterious and magical world of the sailor. One of the outstanding features of the book is that it is compiled based on the exhibits of the “Surakhani” ship-museum, the first and largest tanker-museum in the world.

We hope that the book will be of interest not only to the little ones, but also to their older brothers and sisters and even their parents. “Nautical Alphabet” is the first book of ASCO’s “Surakhani” ship-museum series for children. Coming books in this series will be addressed to children and teenagers of different age groups.



Our little friend,

Written in native honeysweet language, the book you're holding in hands will introduce you and your coevals to the interesting profession of a sailor. Seafaring history, its yesterday and today will pass before your eyes like a movie tape you want to watch.

A trip to "Surakhani", first tanker-museum in the world, and familiarization with its exhibits will also please your heart.





Anchor

Heavy object that sticks to the sea-bed and keeps the ship mooring. It is chained to the ship. In ancient times, it was made of stone, later it was cast from metal.



Astrolabe

In Eastern countries, including Azerbaijan, an instrument used to measure horizontal angles and determine the diameters of celestial objects. In Europe, this instrument was called an “astrolabe”. It helped determine a ship’s position in the open sea.



Anemometer

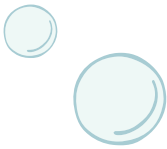
Device that measures wind speed with a rotor. Knowing the wind speed is crucial for ships sailing in open waters. Therefore, all ships are equipped with an anemometer.





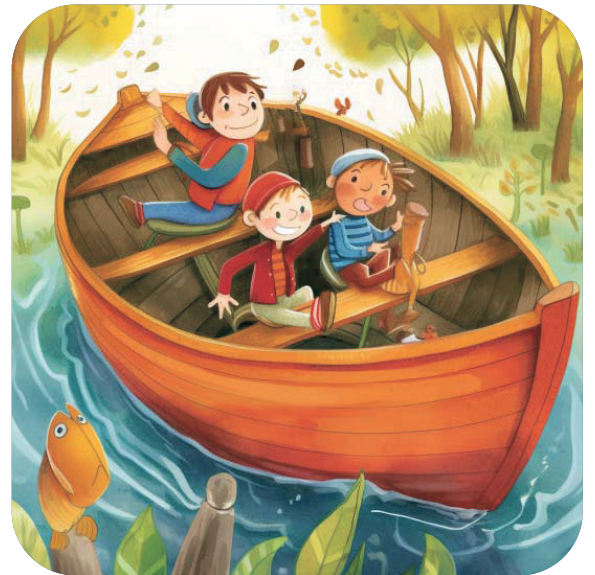
Binnacle

Box for protecting vessel compass from bursts, wind and water. The box is installed on the ship deck, usually accompanied by a lantern or other light source, as well as a clock (*formerly an hourglass, now a mechanical clock*).



Boat

Small-sized floating device. Boats made from wooden logs, later from flexible frames covered with leather and eventually from planks were used in ancient times. Boats are primarily paddled and some can be sailed too.



Bulwark

A fence built along the edge of the upper deck of a ship. There are large holes in the fence for water to flow, cables and ropes.





MONYEL

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Compass



One of the first navigation instruments that facilitates orientation on land based on the Earth's magnetic poles. The magnetic compass is widely used due to its simple design, light weight, small size, and the fact that it operates without a power source.

Capstan

Vertical winding pipe. It is used for towing ships to the shore, lifting cargo and other purposes.

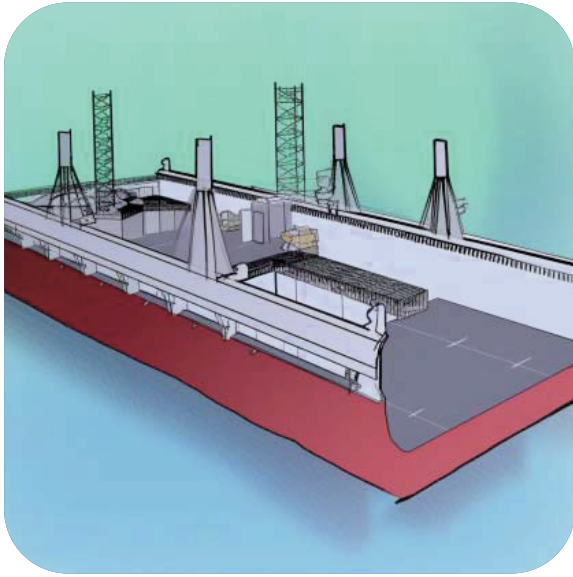


Chronometer

The chronometer was invented before the mechanical clock, in the 18th century. Captain used to determine time by observing the sun or stars at the ship's location. Then, he would compare it with the time at the Greenwich Meridian using a chronometer. Through this calculation, they could determine both precise time and ship's meridian position.







Dock

Place for taking a ship out of the water to repair its underwater parts or to build a new ship. Dry dock is filled with water in advance and once the ship enters, the water is drained, allowing the ship to rest on supports.

Depth sounder (manual)

An instrument used to measure the depth of water from a ship. One of the oldest marine tools depth sounder consists of a long rope with a heavy object (*originally stone, later iron or bronze*) attached to its end.



Diver

A diver is a specialist who dives underwater in a special suit and can perform various tasks there using specialized equipment.





Echosounder

A device that measures the depth of water from a ship. The working principle of the echosounder is simple: the time it takes for the ship's sound and ultrasound signals to go to the bottom of the sea and return (transition time of the signals) is calculated.

Engine room

The engine room is a space on a ship designed for housing the machinery and mechanisms that power its movement.



Eye splice

“Eye splice” is a permanent loop on a rope formed by intertwining strands similar to a splice. Also, “ogon” refers to a ring made of rope, created in the middle or at the end of it.







Float

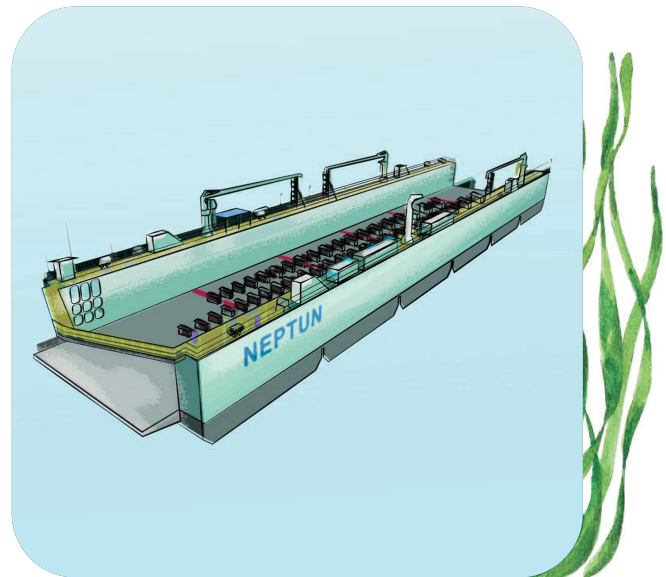


Floats (*also called pontoons*) are airtight hollow structures, similar to pressure vessels, designed to provide buoyancy in water. Their principal applications are in watercraft hulls, aircraft floats, floating pier, pontoon rhinos, pontoon causeways, and marine engineering applications such as salvage.

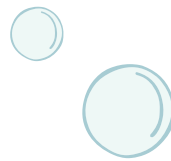


Floating dock

A specialized lifting device that allows for repairs to be carried out on a ship without the need for dry-docking it on the shore. The floating dock, reminiscent of a floating platform, is filled with water. Once the ship in need of repair enters the dock, the water is drained, and the floating dock, now sitting above the water, also lifts the ship for maintenance.



Flare



Pyrotechnic distress signal. On a ship, a red flare is ignited in case of an accident. The flare burns for up to 5 minutes, even continuing to burn in the rain. A white flare provides good illumination in the area.





Gong



A metal plate resembling a bell used to sound a signal. When struck with a hammer, it produces a loud sound, significantly different from the ship's regular bell, which is why it was installed on warships to signal excitement or alarm.



Gyrocompass

A device on a ship that indicates the vessel's heading and direction relative to the geographic meridian. It is more accurate than a standard compass because it is not affected by metal objects and the motion of the ship.



Guild



In the Middle Ages, it was a union or organization created by European merchants to engage in long-distance sea trade with distant countries. The word's meaning is "fellowship" or "association." It typically referred to a form of unity among individuals with common interests.





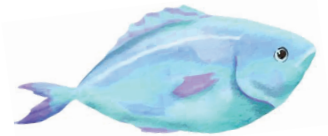
Hatch boat

Small-scale specialized fishing boat. This boat is distinguished by its openable and foldable design of the upper deck. A large net is placed in the empty space of the boat, with the lower part of the net submerged in the water. This allows for the live catch of fish to be delivered to the shore in good condition.



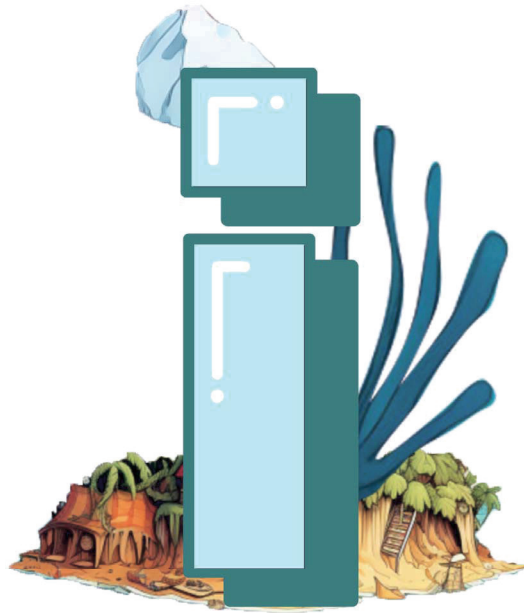
Heliograph

A simple device that transmits information over long distances using optical means. This device, consisting of a mirror and a support, reflects sunlight to transmit signals using the Morse code.



Hydroplane

A high-speed, lightweight boat. Due to the special shape of the boat's lower part, during motion, the bow of the boat rises significantly above the water, allowing the boat to skim rapidly on the water's surface.





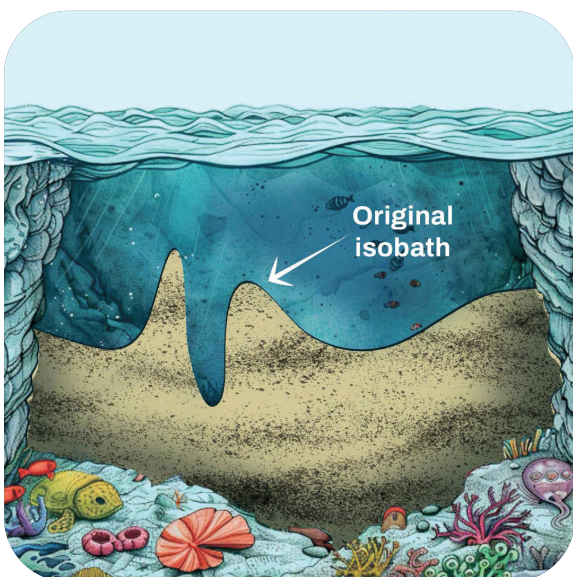
Icebreaker

Icebreaker is a special purpose ship designed to move and navigate through ice-civered waters, and provide safe waters ways for other boats and ships.



Ironclad

An ironclad is a steam-propelled warship protected by iron or steel armor plates, constructed from 1859 to the early 1890s. The ironclad was developed as a result of the vulnerability of wooden warships to explosive or incendiary shells.



Isobath

A line on a map or chart that connects all points having the same depth below a water surface (as of an ocean, sea, or lake).

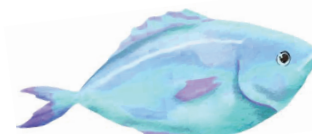






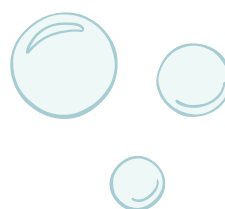
Junk

A traditional sailing wooden ship of the Far East people. Junk sails of bamboo leaves are gathered like blinds.



Jib boom

A continuation of the bowsprit, a runout plank on the bow of a sailing ship. It was possible to increase the speed of the ship by hanging an additional flat or triangular sail to the jib boom.



Jib

Jib is a triangular sail that sets ahead of the foremast of a sailing vessel.





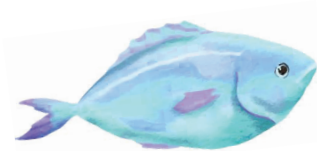


Kayak

A narrow, rowing, light sports boat. The oars are two-sided, the boat has a deck called “deka” to prevent water from filling up.

Knot (unit)

“Knot” is a unit used to measure speed. 1 knot is equal to 1 nautical mile per hour. It is used in maritime and aviation contexts.



Ketch

A ketch is a two-masted sailboat whose mainmast is taller than the mizzen mast (or aft-mast), and whose mizzen mast is stepped forward of the rudder post.







Lifejacket

A device intended to keep a person afloat. When the ship is in an accident or when the sailor does any work in the water, he must wear a life jacket.



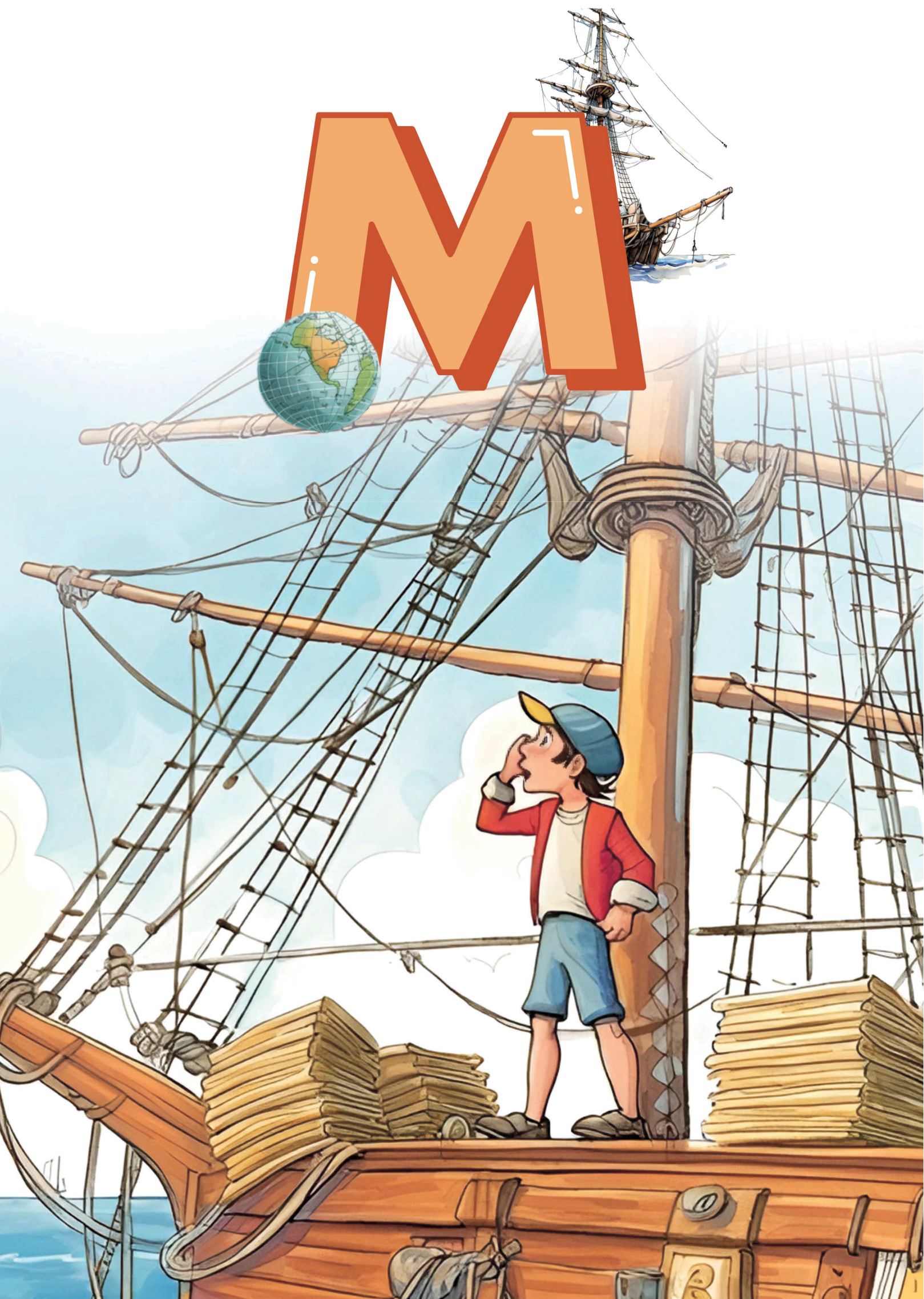
Lighthouse

A device shaped like a cone or funnel, used to mark a coastline and help ships determine their position and course in the sea, river, or lake, is known as a “beacon”. The top of the beacon was often equipped with a light or fire to provide signals to ships.



Lashing

A special, strong rope used to fasten 2-3 or more mooring lines together on a ship is known as a “hawser”. This type of rope is also used to secure the ship’s lifeboat and for lashing various types of cargo.



Morse code

The alphabet invented by and named after the American inventor Samuel Morse. In this alphabet, letters are described by long and short signs - “dashes” and “dots”. Morse code was used to send telegrams by telegraph machine. For the first time, these words were transmitted in Morse code: “He who is patient wins”.



Mast

Mast is a pole that rises vertically from a ship and support the sails.



Magnetic declination

Magnetic declination is the angle on the horizontal plane between magnetic north and true north.







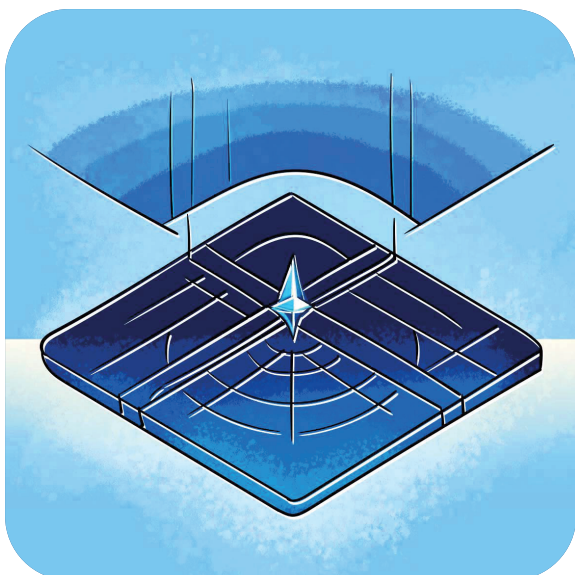
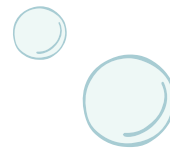
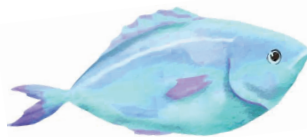
Narrowboat

A narrowboat is a particular type of canal boat, built to fit the narrow locks of the United Kingdom.



Navigation

Marine navigation is the art and science of steering a ship from a starting point to a destination, efficiently and responsibly.



Nautical mile

A nautical mile is a unit of length used in air, marine, and space navigation, and for the definition of territorial waters.





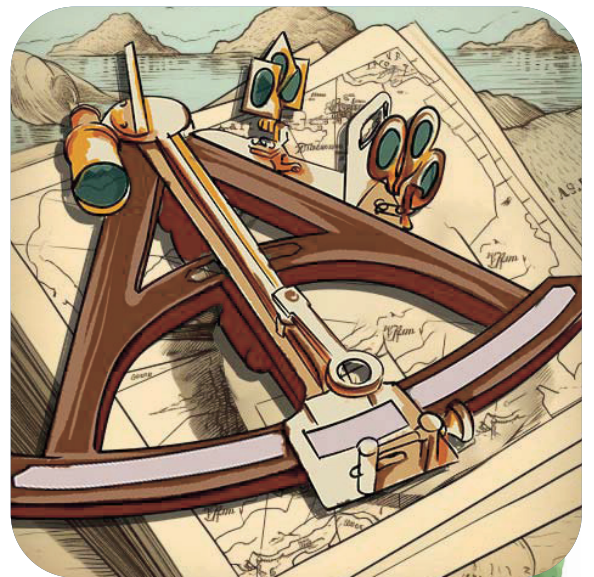
Outport

The desert side of a port. It is designated for anchoring or berthing in very deep waters, and ships carrying hazardous cargo, such as explosives, do not enter the port but anchor in the roads.



Octant

A device used in marine navigation to measure angles up to 90 degrees and to determine the position of stars in the sky is called an "octant". The calculations made with an octant were used to determine a ship's position on the open sea.



Oakum

Oakum is tarred fibre used to seal gaps. Its main traditional applications were in shipbuilding, for caulking or packing the joints of timbers in wooden vessels and the deck planking of iron and steel ships.

P

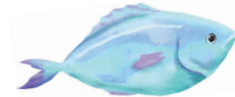




Pass rope

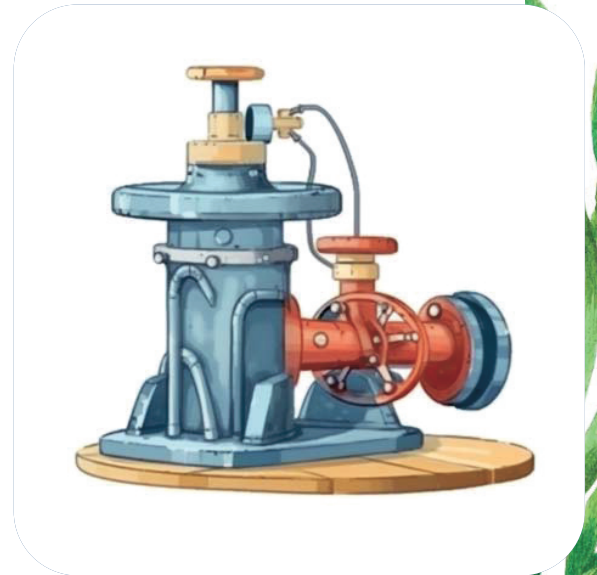


A metal rod with a support at the rear and a hook at the end is known as a “dart”. This rod is used to fasten the heavy anchor chain, allowing it to be released from the anchor locker.

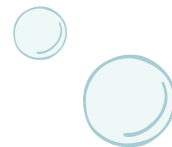


Pump

Pump is one of the equipment type used on board. The air pump pumps air into the diving mechanism, and the fire pump pumps water under high pressure during a fire. When the ship fills with water, the bilge pump is turned on and the water is removed from the ship.



Patache



A patache (*occasionally “patax” or “pataje”*) is a type of sailing vessel with two masts, very light and shallow, a sort of cross between a brig and a schooner, which originally was a warship, being intended for surveillance and inspection of the coasts and ports.





Quadrant



A device that allows for determining a ship's position in the open sea by measuring the height of the sun above the horizon is known as a "quadrant". While there are various types of quadrants, the quadrant named after the navigator and inventor John Davis is particularly well-known among mariners and historians.



Quarterdeck

The quarterdeck is a specific area on a ship's deck, typically located at the rear part of the ship. It serves as a distinct and often elevated section of the deck, historically associated with the ship's command and navigation.



Quartermaster

In the modern navy, a quartermaster is a petty officer who specializes in navigation.



R





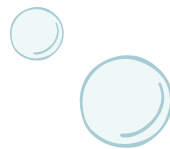
Research vessel

A specialized ship designed for conducting scientific research and investigations in seas and oceans is called a “research vessel”. These vessels are equipped with a wide range of sophisticated scientific instruments and are staffed not only by seafarers but also by scientists who conduct various types of research at sea.



Rope

A wing-shaped object used in maritime activities is called a “sail”. It is made from materials such as canvas, nylon, kapron, or plant fibers. Ropes, which are reliable fastening tools, are used for various purposes in maritime, including connecting one ship to another or to the shore, securing sails, and fastening cargo.



Ratlines

Ratlines are lengths of thin line tied between the shrouds of a sailing ship to form a ladder.







Ship

A large, floating structure used for transporting goods and passengers, as well as for commercial and military purposes, is called a “ship”. The first ships were rowed, later sailing ships were developed, and eventually, motorized ships were invented.



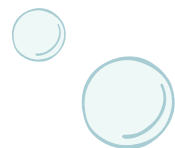
Signal flags

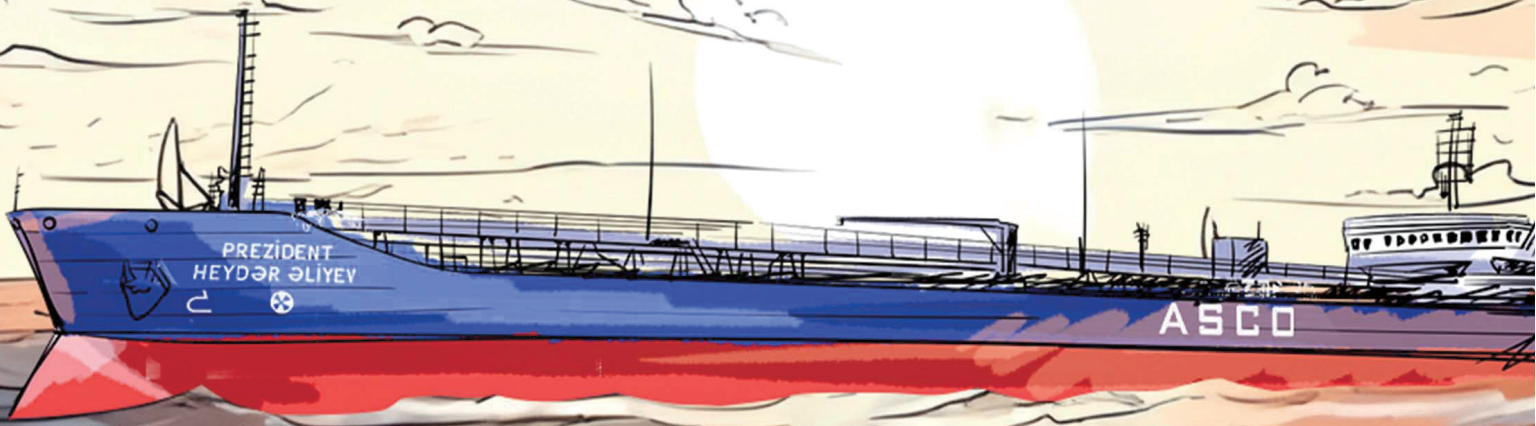
Small flags with specific sizes, colors, and shapes used by ships to communicate with each other during daylight hours are known as signal flags. In the international signal flag system, there are 40 flags, each representing a specific letter, signal or command.



Sou'wester

The headgear included in a sailor’s special uniform is called a “hat”. This hat, with its wide brims, is designed to be water-proof. Historically, the headgear used by northern peoples was mainly made of leather. Nowadays, this type of hat, worn in stormy weather on all seas, is made not only from leather but also from other specialized materials.







Tanker

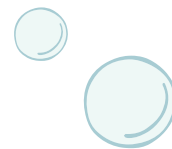


A ship that carries liquid cargoes such as oil, gasoline, spirits, oil, wine, liquefied gas, etc., is called a tanker. Liquid cargo is loaded onto the tanker using a hose or pipe, and it is discharged from the tanker using ship pumps.



Tiller

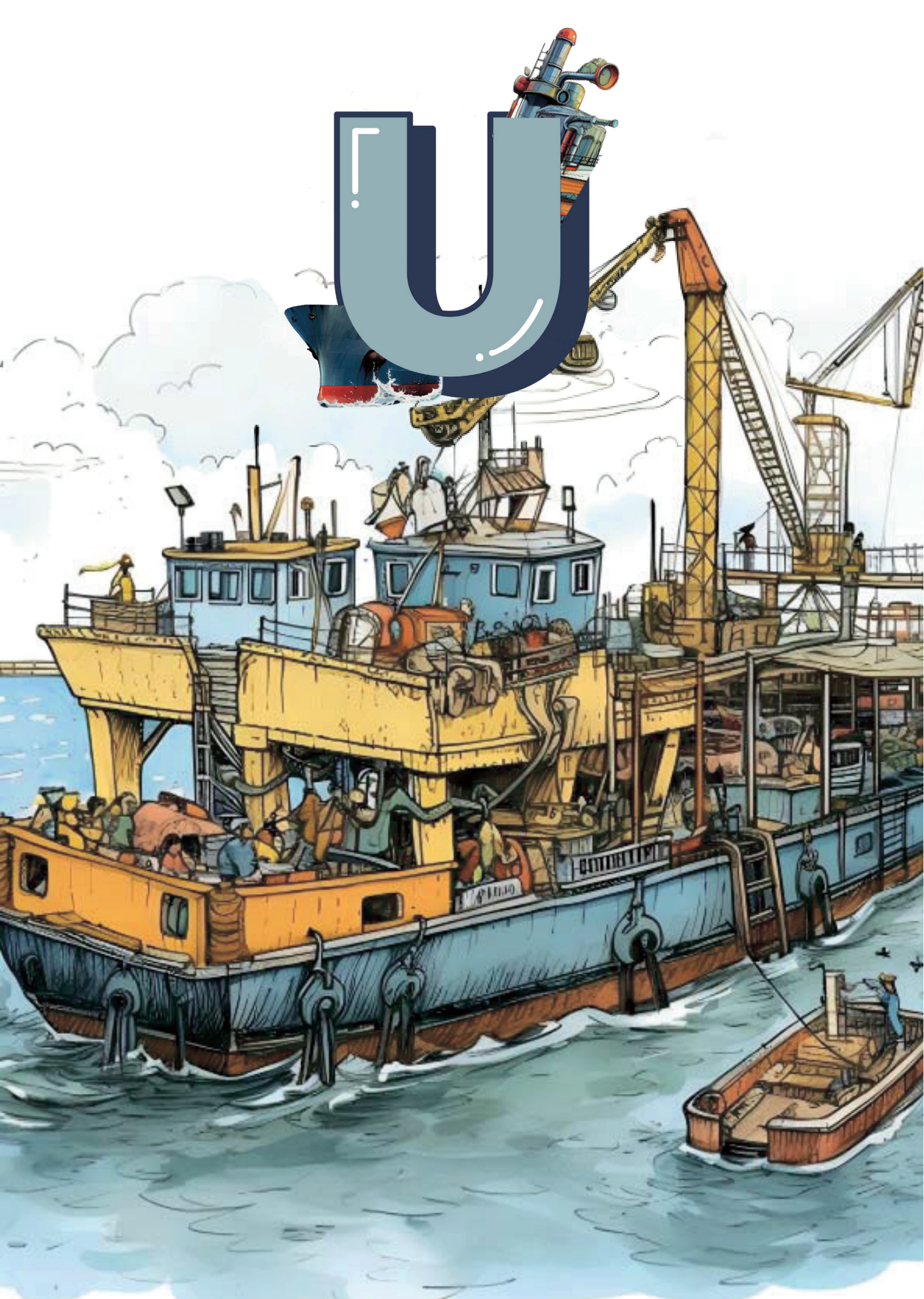
An element used in the steering of all types of ships in ancient times and currently used in the control of small wooden boats and catboats - the tiller. It's a wooden arm or support attached to the rudder at a 90 angle. Steering a boat, especially a catboat, is achieved by moving the tiller from side to side.



Treenail

A large wooden nail used in shipbuilding. In the past, such nails were used when constructing ships from wood. Wooden nails do not rust, swell when in contact with water, and provide a stronger hold. Additionally, they do not corrode the wooden parts.







Underway replenishment

Underway replenishment or replenishment at sea is a method of transferring fuel, munitions, and stores from one ship to another while under way.

Unloading barge

Barge Unloader transfers all types of feed, grain and many other granular commodities.

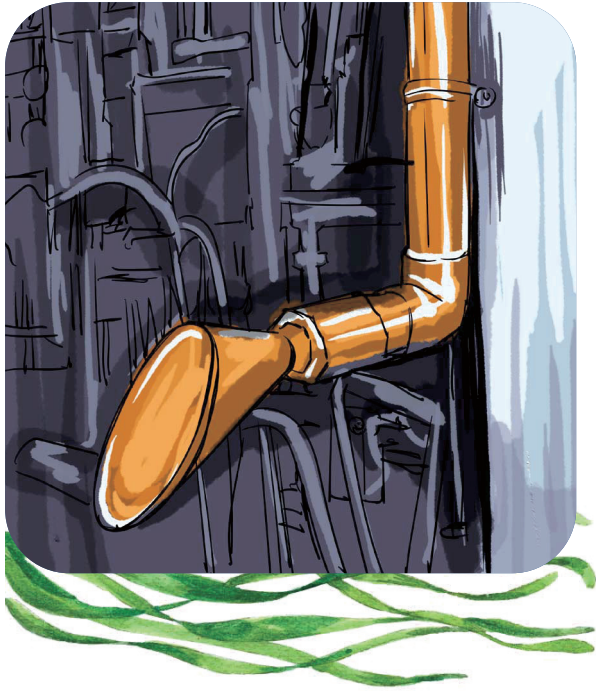


U-boat

U-boats were naval submarines operated by Germany, particularly in the First and Second World Wars.

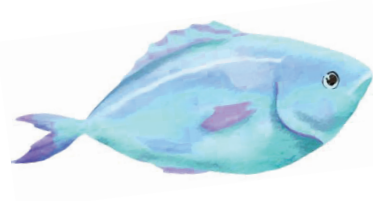
V





Voicepipe

A voicepipe or speaking tube is a device based on two cones connected by an air pipe through which speech can be transmitted over an extended distance.



Voyage

Maritime voyage refers to a journey or trip that takes place on the sea or any other navigable waterway.



Vessel

Vessel is a water craft, including non displacement craft and seaplanes capable of being used as a means of transportation on water.





Washstrake

The upper plank of the boat side with notches or special brackets for oars.



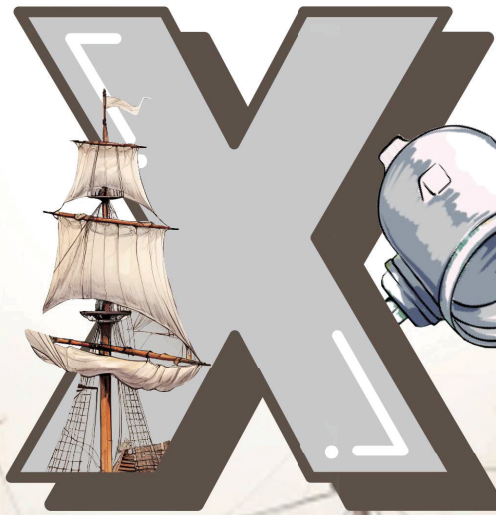
Windsail

A thick piece or rubbery material used to change the air in the enclosed internal compartments of a ship or boat. Its wide, fin-like shape is rotated to the direction of the wind for ventilation.



Whaleboat

A narrow-bodied boat with a pointed bow and stern. This type of boat typically has 4-8 oars, and some rowing boats can also raise sails. Due to the similar shape of its bow and stern rowing boat moves swiftly even in choppy waters. For this reason, larger ships often carry lifeboats in the form of rowing boats.





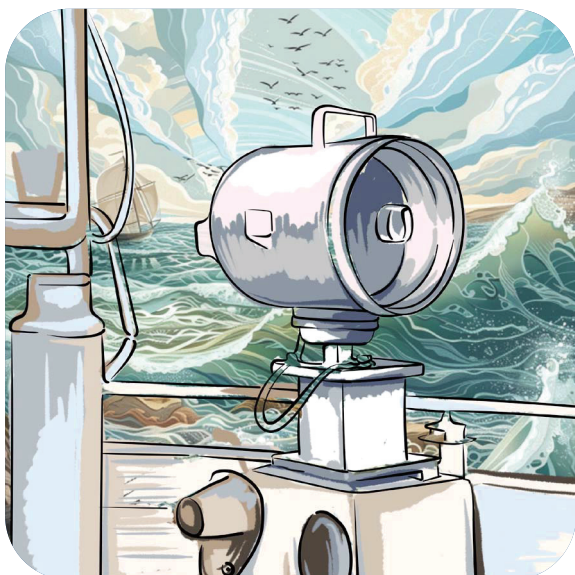
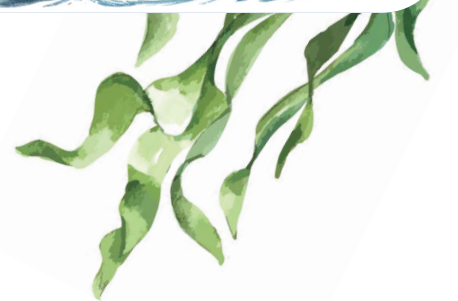
Xebec

Small three-masted, lateen-rigged trading vessel of Mediterranean Sea and Iberian coast.



X-band radar

Marine radar installed on large research vessels and used for ship traffic control and navigation.



Xenon Light

Xenon Light type of powerful, high-intensity light used for signaling and navigation on ships.



Yacht

A sail or motorized recreational and leisure boat. In earlier times, yachts were primarily constructed from wood, while modern yachts are built from metal or plastic materials.



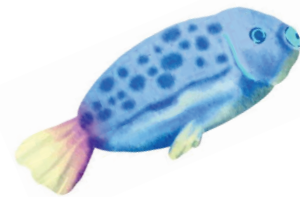
Yawl

Modern sail system which allows easy control of lightweight boats and dinghies, even in strong winds. Its name is derived from the small two-masted fishing boat.



Yard

A yard is a spar on a mast from which sails are set. It may be constructed of timber or steel or from more modern materials such as aluminium or carbon fibre.







Zulu flag

“Z” flag or Zulu flag of International Code of Signals means “I require a tug”.



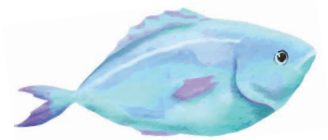
Z boat

Robotic survey vessel which enables hydrographic survey professionals to collect and analyze shallow data.



Zinc Protector

A Zinc Protector, also known as a “zinc anode”, is like a shield for metal objects in water, like boats. It’s made of a special metal that rusts easily.

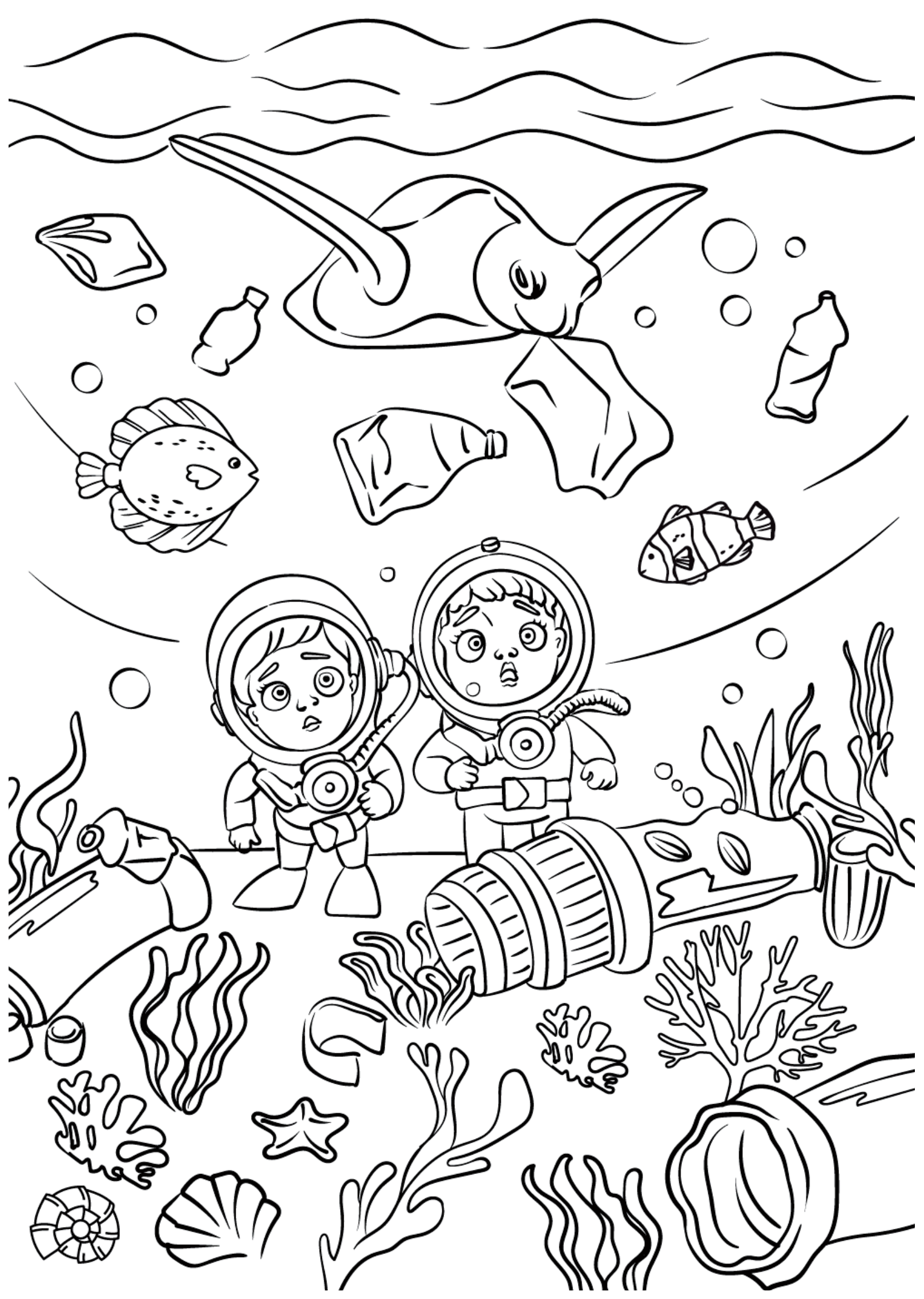




Young friend, you have already learned new words and have become an expert of sea mysteries. Would you like to become part of this vast world as other seafarers? You will be doing as great as seafarers if you keep our sea clean. You can become a real marine life hero if you take care of the environment. Do not throw garbage into the sea, because every plastic bag or bottle that ends up in the water can become a danger to the aquatic wildlife.

Share this information with your friends and invite them to color these amazing pictures together!







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