

Safety at sea

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Starter What am I?

What am I?

The most southerly one of me on mainland Britain is located on Lizard Point in Cornwall Sometimes I am located in the open sea and sometimes I am located on shore

Trinity House owns and maintains 66 of me along the coasts of England, Wales, the Channel Islands and Gibraltar I have kept seafarers safe for centuries

A lighthouse!





Seafarers on vessels of all shapes and sizes use lighthouses to warn them of danger and to guide them to land or a harbour.

Some lighthouses are on shore, near to the sea or on top of a cliff.

Some lighthouses are offshore, either on a small island or on top of a base of rock. These are usually very tall towers, exposed to the sea.



Lighthouses come in different shapes and sizes, but they all have a bright light in common. Hundreds of years ago this was done by burning coal or wood. Lighthouse keepers used to live at the lighthouse to make sure there was always a light shining during the night to guide approaching ships.

Today we use small but high-powered LED lights, powered by electricity.



In 1823, a man named Augustin Fresnel [Freh-nel] created the 'dioptric' system for improving the visible distance of navigation lights. This system uses glass lenses to collect and magnify the light. This arrangement of lenses is called an 'optic', and was rotated to create a unique flash pattern. Each optic is different, so that the seafarers at night can recognise each lighthouse and calculate their position at sea.



Trinity House looks after 66 lighthouses around England, Wales, the Channel Islands and Gibraltar. Trinity House built its first lighthouse at Lowestoft in 1609, and has built many more over the following centuries.

Typically, lighthouses on the east coast sit on low-lying coastal shorelines, and those on the west coast are on rocky cliffs, offshore islands or rocks.

Activity 1 Safety at sea

Our aids to navigation





What colour are the lightvessels operated by Trinity House?



Who provides the guidelines for the buoys Trinity House maintains?



What assistance do the lightvessels provide at night?



What is named as one of the world's busiest waterways?

The role of Trinity House

What is Trinity House?



As the need for the import and export of food and goods around the world increases, our shipping lanes become increasingly crowded.

The UK is an island nation and depends on ship-borne trade. Because there is so much sea traffic, ships need help to be guided safely through our waters.

What is Trinity House?



Trinity House is an organisation that helps keep ships safe when they travel in the waters around England, Wales, the Channel Islands and Gibraltar.

It does this by providing **aids to navigation** to help seafarers guide their vessel.

Aids to navigation



Trinity House looks after 66 lighthouses and around 450 buoys around England Wales, the Channel Islands and Gibraltar.

These help ships navigate safely when they visit our waters.

Buoys



A buoy is a highly visual object that floats in water and is used to locate or warn passing ships. Buoys are generally bright in colour.

Their different colours, shapes and designs are part of a visual language that tell seafarers about different safety messages, such as nearby hazards, safe routes and more.

Lightvessels



Trinity House has a number of lightvessels. These provide a visual aid to navigation in daylight hours in the form of a large red ship and by night they provide a long-range powerful light for ships in the area.

The aids to navigation provided by Trinity House assist all mariners, at all times and in all conditions.

Activity 2 Construct a lighthouse