

This activity should be undertaken during your visit to the Emirates Spinnaker Tower.

### CURRICULUM LINKS

**ENGLISH** – Make inferences based on what is being said and done.

**GEOGRAPHY** – Interpret a range of sources of geographical information, including maps.

**GEOGRAPHY** – Use simple compass directions (North, South, East, West) and locational and directional language.

### RESOURCES

- Cameras – children can use their own camera phones or a school camera.
- Set of compasses for the class (will be provided by the Tower), or use a compass on the staff member's smartphone. A downloadable version to show at school is available [here](#).

### LEARNING OBJECTIVES

- To collect and record evidence of geographical features from Emirates Spinnaker Tower.
- To recognise coastal features in the harbour and record them in a drawn map.
- Observe and document different shapes
- Understand compass directions
- Work together in pairs.

### ACTIVITY OUTLINE

Staff should be helping the children understand the points of the compass and what they can see at each compass point. It is also important to encourage them to take plenty of photographs of their day to support post-visit activities.

### BEFORE YOU VISIT

There are two different level worksheets available for you to download as part of your visit. Please download these and bring them with you. Please advise the Tower team of your visit and your intention to undertake this activity so they can prepare the resources for you.

### STARTER

- Ask the children how Portsmouth looks from high up in the Tower. Take feedback.
- Work with the children to observe the different areas of land that they can see. Ask them to point out the following: The docks, the sea, the islands, the shopping centre, the bus station, the harbour entrance.
- Give each pupil the changing coastal worksheet and ask them to complete the missing coastal features.
- Give out the compasses to the pupils and recap on how they work.
- Do you think Portsmouth is in the north or south of United Kingdom?
- Run through with the children clockwise and anti-clockwise directions.
- Begin with the whole class following the directional instructions as follows:

- Ask the children to locate south on their compass. Face south what can they see? Help them out by pointing out certain things. Probably the sun. Point out the horizon. "The line at which the earth's surface and the sky appear to meet".  
= **The Solent/ Isle of Wight**  
= **Defence Forts in the sea called Palmerston Follies**

- Now make a quarter turn clockwise (looking West). What can they see? Help them out.  
= **Portsmouth Historic Dockyard**  
= **Chalk Cliffs**
- Turn a quarter turn to face North – why can they not see anything (leg of building).

- Turn a quarter turn again (East). What can they see? That's where the sun rises. Show the students the arc of the sun.  
= **Hayling Island**  
= **Gunwharf Quays**
- Turn a quarter turn back to South. They've just turned in a full circle – 360 degrees.



- Working together in pairs see if you can find the points on the worksheet and complete the questions. (If the children have their own cameras take lots of photographs from each compass point these can be used back at school.
- You will find directional cards which you can put around the tower if some children are finding it difficult with the compasses.
- What else can you use to find the right direction? = **Satellite navigation, stars, maps**
- Explain to the children what a horizon and horizontal line is? Ask all of the children to draw a line picture of the horizon from any of the windows, looking at the shapes of the buildings as they do.
- Can they see any shapes in and around the Tower today? = **Circles portholes, triangles at the stairs, rectangles glass floor, Square Tower/Round Tower in view**
- Ask the children to draw pictures of the shapes that they can see on their worksheet.
- To finish play a game of i-spy you can start them off. The pupil that gets it right will lead the next turn. ' A Fort that you can see in the sea 'include transport, landscape features, landmarks etc in the game.

## OTHER HELPFUL INFORMATION

### Additional Harbour Information

The harbour has a number of coastal features:

- **Burrow Island** - Also known locally as Rat Island has the remains of a fort built here. A spit can also be seen protruding from the island at low tide.
- **Horsea Island** - Located in the north-east of the harbour. Now attached to the mainland as part of the huge land reclamation scheme that created Port Solent and the land fill site. Was originally two islands, 'Little Horsea Island' and 'Great Horsea Island'. Now the 'island' is home to the Port Solent marina complex, with an area still used by the Royal Navy's Defence Diving School.
- **Whale Island** - Located on the central eastern side of the harbour. A permanent shore base was created on the island known as HMS Excellent.
- Portsmouth Harbour is a designated 'Special Protection Area', a SSSI, a 'RAMSAR' site and a 'Special Area of Conservation' due to the marine habitats, unusual flora and fauna and migratory birds that use the wetlands.
- Portsmouth Harbour is a large natural harbour. The city of Portsmouth lies to the east on Portsea Island, and Gosport to the west on the mainland. At its north end is Portchester Castle, of Roman origin and the first fortress built to protect the harbour.
- In modern times, the harbour has become a major commercial ferry port, with regular services to Le Havre, Cherbourg, St Malo, Caen in France. The Channel Islands and the Isle of Wight. There is also a passenger ferry to Gosport. It is a major area for leisure sailing. In 2006 the Gunwharf Quays development, including the Spinnaker Tower (2008) was built.