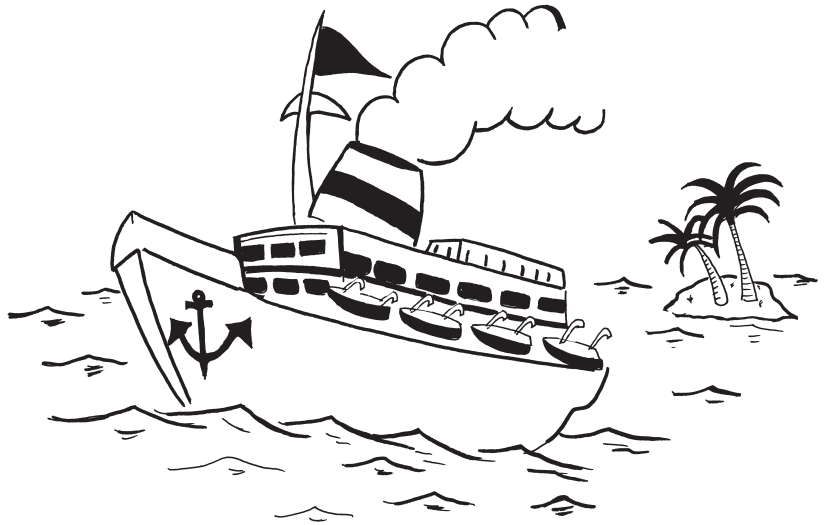


6 – Cruise to Italy

It was time for the family to move on again to the next country. This time they were not travelling on an aeroplane though. They were going to travel to Italy by sea.



As the family arrived at the seaport a lot of people were getting on the big cruise ship. Ben looked very afraid.

“Dad, will the ship sink if all those people get on it?” he asked.

“No, don’t worry,” replied Dad, “it will be fine. The force of the water will hold it up and stop it from sinking”.

The family got on the ship to go to Italy.

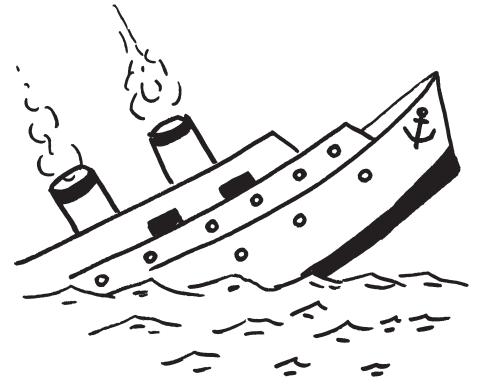
1. Where were the family going to? _ t _ l _
2. How were the family travelling? Circle the right answer.

car plane ship bus

3. Were there a **lot** of people or a **few** people getting on the ship? _____



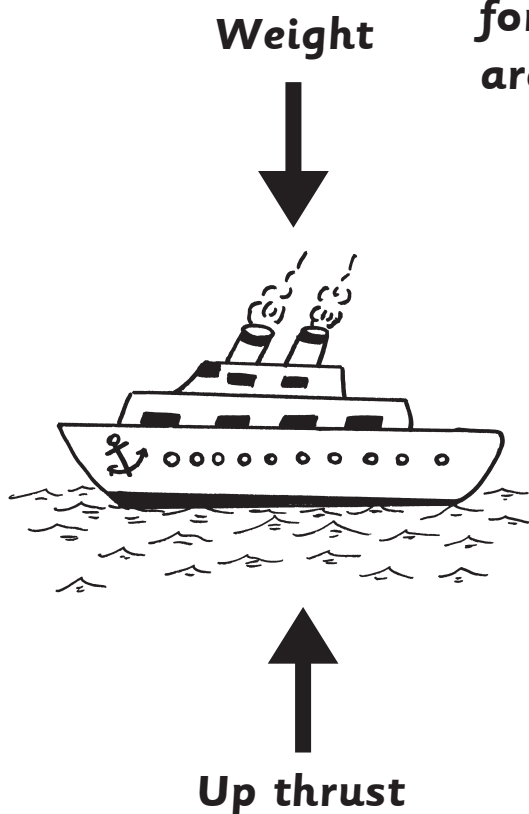
Floating and Sinking



1. Try this investigation. Which of the objects will float and which will sink? Make your predictions first.

Object	Prediction	Float or Sink
Pencil		
Egg		
Apple		
Paper clip		
Toy Boat		

The picture of the boat shows the forces that are acting on it. These are **Weight** and **Up thrust**.



2. What is the name of the force that is acting downwards?

3. What is the name of the force that is acting upwards?

4. If you put more weight on the boat. What do you think would happen to it?

Teacher Guide 6 – Cruise to Italy

We Are Learning Today.....	What effect weight has on an object sinking.			
What I'm Looking For.....	Some pupils to know that some objects float and some objects sink. Some pupils to know that if you increase the weight of an object it will eventually sink.			
QCA Links	2E Forces and movement, 6E Forces in action, 7K Forces and their effects.			
Starter	Pupils to make a prediction whether the selection of objects will float or sink.			Resources: <ul style="list-style-type: none">• Water• A selection of different objects• Coins
Main	Pupils to take a selection of objects and place them in water to see if they float or sink. Ask pupils why they think this may have happened. Carry out the investigation adding your own objects to the table. Introduce the words weight and up thrust. Ask pupils to use the objects that floated and place more weight (could use coins) on top of them until they sink. Explain that the force of up thrust keeps the object afloat until the force of weight is greater. Pupils to complete the worksheet.			
Plenary	Pupils reflect on their predictions and see how many they got correct.			
ICT Opportunity	Find definitions of the words float and sink.			
Skills Opportunity	Carry out an investigation into sinking.			
Monitoring Assessment Opportunities				
P1 (i): Has contact with water	P1 (ii): Handles objects of different sizes	P2 (i): Picks up and drops objects	P2 (ii): Runs hands through water	P3 (i & ii): Uses a range of objects in the water
P4: Squeeze water from a sponge	P5:	P6: Shows an awareness that water makes all things wet	P7: Knows the words float and sink	P8: Discuss that water can move
Level 1: Knows that things move by pushing and pulling	Level 2:	Level 3: Know forces can change direction	Level 4: Aware of opposite forces	Level 5: Explain the effects that forces have on acceleration