

YEAR-4 SCIENCE

TERM 1- WEEK 2

Topic: Scientific investigation

Key Vocabulary – Aim, prediction, fair test, observation, conclusion, observe, reason, method, variable, constants, apparatus.

READ THE FOLLOWING TEXT CAREFULLY.



WHY DO THINGS FLOAT IN WATER?

Objects are made up of very tiny molecules. Molecules can be packed in close together like in a rock or more spread out like in bubble wrap. The positioning of molecules affects the density of an object. Objects with tightly packed molecules are more dense than those where the molecules are spread out.

Density plays a part in why some things float and some sink. Objects that are more dense than water sink and those less dense floats.

Hollow things often float too as air is less dense than water. This is partly why huge heavy ships float. Another thing to consider is the shape of an object. Generally, the more of the outside of an object that is touching the water the more buoyant it is. Water pushes back up against objects so the more surface area an object has the more water pushes back against it helping it to float.

When an object floats, it pushes water out of the way (displacement). Have you ever noticed that when you climb into a bath the water level rises? That is because your body displaces (moves) the water.

COMPLETE THE SENTENCES WITH ONLY ONE WORD FROM THE TEXT.

1. The density of an object is affected by the position of _____.
2. Objects with tightly packed molecules are more _____ than the ones with separated molecules.
3. Objects that are less dense than water _____ and those more dense than water _____.
4. Water is _____ dense than air.
5. Displacement is when an object _____ water out of the way.

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1. The density of an object is affected by the position of molecules
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4. Water is more dense than air.
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