

Science Concept Cartoons[®]

Sample Set 1

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Produced by Millgate House Education

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Concept Cartoons® are cartoon-style drawings that put forward a range of viewpoints about a particular situation. They are designed to intrigue, provoke discussion and stimulate thinking. Concept Cartoons make concepts problematic and provide a stimulus for developing ideas further.

Each Concept Cartoon can be used to stimulate a free standing discussion and enquiry. Alternatively, the Concept Cartoons can be linked together to form a larger topic or to create a project related to science.

Some Concept Cartoons may look as if they are too easy for some learners, but their deceptive simplicity can stimulate discussion about more challenging concepts and can often reveal some basic misunderstandings. Learners can create their own Concept Cartoons as a way of assessing and reviewing their current understanding.

Concept Cartoons do not always have a single right answer.

Each Concept Cartoon has support material, including ideas for follow up and some possible answers.

- * Concept Cartoons are normally used to promote a group discussion.
- * Ask learners to discuss why each character in the Concept Cartoon might hold their particular idea. Do they have any other ideas that might go in the blank speech bubble?
- * Avoid being judgemental when learners are sharing their ideas. The uncertainty created by Concept Cartoons is productive.
- * Provide an opportunity for learners to explore, challenge or consolidate the ideas raised through the Concept Cartoon(s).
- * Provide time for learners to share their ideas.
- * Have they changed their minds and why?

To learn more about Concept Cartoons and how they are used, visit:



www.millgatehouse.co.uk



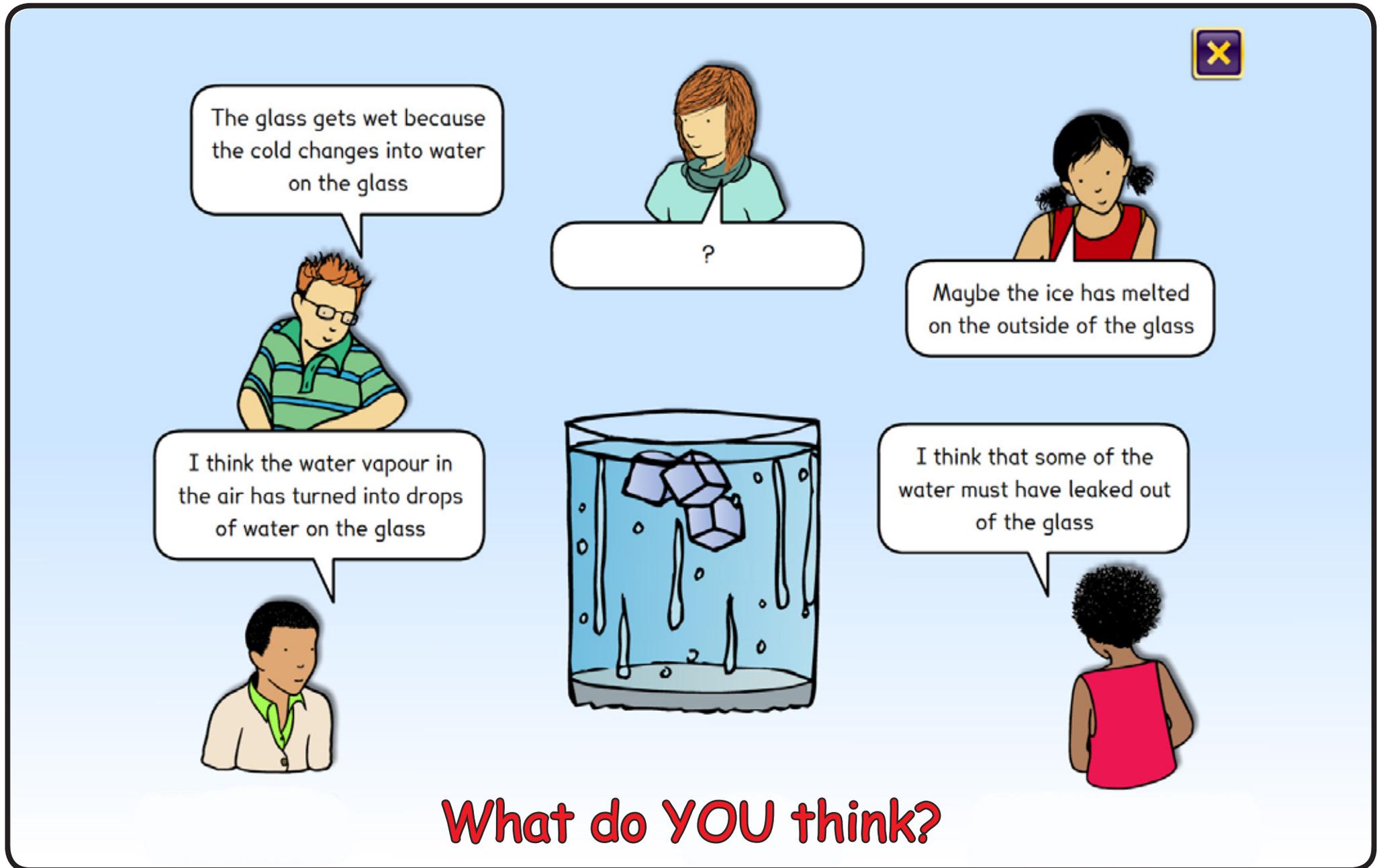
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4.3 Condensation



The glass gets wet because the cold changes into water on the glass

?

Maybe the ice has melted on the outside of the glass

I think the water vapour in the air has turned into drops of water on the glass

I think that some of the water must have leaked out of the glass

What do YOU think?

Follow up

You can investigate this by observing what happens when you take a cold empty glass out of a freezer and fill it with ice. Does the outside of the glass get wet? If it does, where could the water have come from? Does it happen wherever you put the glass, for example indoors and outdoors? Look at windows in a classroom, or in a car, when people have wet clothing. Look at mirrors in bathrooms, or people's spectacles after they come inside on a very cold day. What do you see, and how can you explain it?

Ideas

The water we see on glasses and other surfaces is called condensation. We see condensation in lots of different places, but it isn't obvious where the water comes from. There is normally water vapour in the air, but it is a colourless gas so we can't see it. Where the temperature is lower the gas turns into droplets of liquid. This is what we see as mist or condensation. Condensation usually forms when moist air hits a cold surface. A glass containing ice is usually cold enough for water vapour in the air to turn into droplets of liquid water on the side of the glass. Compare the amount of condensation that you get in different places, such as where there is still air, moving air, cold air, warm air, dry air and moist air. What do you notice? Condensation can cause problems in houses. Can you use what you have learnt to think how condensation might be reduced?

For more information about Concept Cartoons visit <http://www.millgatehouse.co.uk/science/ccscd>