

CurriculumVisions Lesson

Students: fill in next to the word answer and return the document for assessment.

Science

Book: Changing from solids, to liquids to gases (5D)

Pages 4-13

Everything here is based on our Curriculum Visions book **Changing from solids, to liquids to gases (5D)**

Part 1

In this segment, we are going to learn more about melting, freezing and solidifying .

You will need to go to pages 4-5 of the book.

What are the differences between a solid, liquid and gas?

Answers.....

Solid: the particles are held tightly together and can't move; a solid can't change shape unless it is pushed or pulled.

Liquid: The particles are held more loosely, so they can slide past each other; a liquid has no fixed shape and takes the shape of whatever container it is in

Gas: The particles are not attached to each other and move freely. A gas will expand to fill all the space they can, they will bounce against each other until they are evenly spaced.

Go to pages 6-7. Describe what happens when a substance melts. Does every substance melt at the same temperature?

Answers.....

The particles get warm and start to move around. Eventually, the particles have enough energy to break loose from each other enough to slide around.

No, each substance has its own melting point.

Design an experiment to find the melting point of a substance.

Students own answers.....

Students answer should include heating up a substance and measuring the temperature when it begins to melt.

Go to pages 8-9. Why does butter get soft before it melts?

Answers.....

Because butter is a mixture of different substances and each of the substances has a different melting point. So, some of the substances in the butter start to melt first, making the butter soft.

Go to pages 10-11. Why does mixing salt with ice make the ice colder?

Answers.....

Because once the salt has mixed with water, a mixture is created that has a lower freezing point than pure water.

Describe how to make ice cream using salt and ice instead of a freezer. If your teacher agrees, go ahead and make the ice cream.

Students own answers.....

Direct students to Picture 3 and the text on page 11. Beware for allergies.

Go to pages 12-13. As liquids cool, they turn into a solid. What are some ways that this can be a useful property?

Answers could include.....

Making jelly in different shapes; casting metal/shaping metal into complicated shapes; making glass objects; making plastic objects; making television screens

If you are interested in this topic, continue to browse the book and watch our amazing videos. They start right on the book cover.