What causes ice to melt?

version A

Required materials

- 3 transparent glass containers
- a thermometer
- a heat source (an infrared lamp, for example)
- ice cubes of the same size
- a timer/a stopwatch
- a fridge or a cool place

1. Questions before performing the experiment

1. When you hear the term climate change, what comes to your mind?

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2. Have you heard of melting of ice caps?

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3. What do you think causes ice caps to melt?

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4. When does it snow? And when does the snow start to melt?

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2. Watch the first video and perform the experiment

Follow the steps outlined in the tutorial video.

Draw a diagram of your experiment in the box below.

3. Record your measurements

Fill the table.

Glass	Time it takes the ice cubes to melt	Temperature at the end of the experiment
Room temperature		
Fridge		
Lamp		

4. Observations

Describe what happened during the experiment.

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5. Reflect and discuss

1. What did you observe? Which ice cube melted faster?

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2. Which ice cube took more time to melt?

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3. Make a hypothesis. Why did this happen?

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6. Watch the second video and answer the following questions

1. Did you get similar results?

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2. If not, what could be the cause(s)?

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7. Summary

Summarize the activity by answering the questions.

1. Why did the ice melt?

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Think about your observations and the results.
Let's collect them:
Each ice cube was in a different glass in a different environment.

2. What do you think?

   a) Does the environment in which the ice cube was placed have anything to do with how slowly or quickly it melted?

   b) Can you find an explanation for this?

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3. It is important to understand how ice melts and what is needed for it to melt.

   Think:

   a) When does it melt quickly?

   b) When does it melt slowly?

   c) When does it not melt at all?

4. Think about our weather, our climate.

   What has changed here?

5. Where do we find a lot of ice on our planet?

6. What temperatures do we need to maintain the ice for as long as possible?

7. What can we do to help?

8. Why is it important to preserve ice in environments like the Arctic and Antarctic regions?

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