

Study Guide: Science Unit 1 - Hot and Cold Temperatures (Grade 2, 2013/14)

We know how to classify items by their temperature. Look at the items below. They are **ordered from hottest to coldest**.

			
Hottest	Hot	Cold	Coldest

Now it's your turn. Put a number under each picture to show which one is:

1 - hottest
coldest

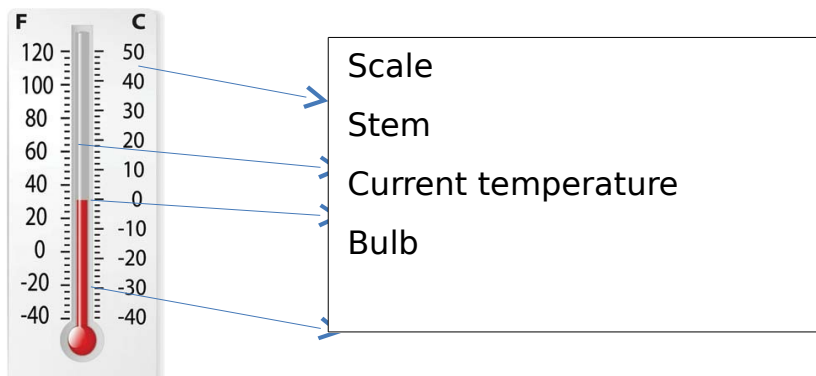
2 - hot

3 - cold

4 -

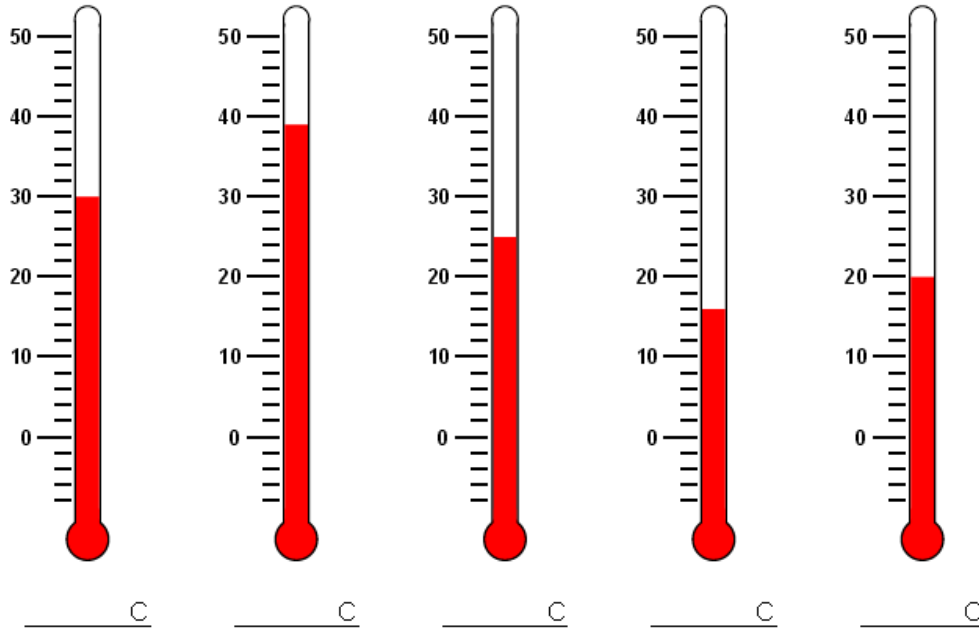


Thermometers are tools used for measuring temperature. We measure temperature in Degrees Celcius. Looking at the scale along the stem of the thermometer tells us how hot or cold something is. For example, the mercury in this thermometer is showing 0 Degrees Celcius (the freezing point of water).



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Now it's your turn. What temperature are these thermometers showing?



When temperatures are very high or very low, it is important we take care of ourselves and stay safe. If mum has a hot cup of tea, we must be careful not to knock it over. If we are playing out in the sun on a hot day, we should drink plenty of water.

Now it's your turn. Write a **safety rule** for:

The oven: _____.

Playing in the snow:
_____.

An **insulator** is something that stops or decreases the transfer or leakage of heat or cold. Fur, blubber, ice boxes, a thermos, a scarf and a jacket are all insulators.



What would be the best insulator to keep this hot chocolate warm?



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Heating or cooling objects often changes them. For example, toasting bread changes it from soft and white, to crunchy and brown. Some changes are permanent. The thing can never be changed back into what it was before. Burning wood in a fire is an example of how heat changes something that can never be changed back.

How does heating sugar change it?



Can the change be reversed? (Circle one) Yes No

How does freezing water change it?

Can the change be reversed? (Circle one) Yes No



There are many ways to change the temperature around us. If we are too cold we could light a fire or turn on a heater. If our classroom is too hot, how could we make it cooler?

How can an animal (like a polar bear or whale) keep themselves warm? Think about the body covering of the animals (such as fur), as well as their behaviours.



Dark colours absorb more heat than light colours. If you were cold at recess, the best colour to wear would be (Circle one):

Black White

Have you ever had a fever? If you are sick your body temperature goes (Circle one): Up Down Stays the same