

Topic: Materials: States of matter	Year 4 Age 8-9	Title: Measuring temperature
Working Scientifically Do: Take accurate measurements using standard units, using a range of equipment including thermometers and data loggers		Conceptual Knowledge Context Understand temperature of materials can be measured in °C
Assessment Focus <ul style="list-style-type: none"> Can children use a thermometer to measure temperature accurately? 		
<p>Activity Ask children to put one hand in cold and one hand in warm water, then put both in tap water. What do you think the temperature of the water is for this hand, for that hand? How accurate is your hand? Need a thermometer. Demonstrate accurate reading – keeping thermometer in the water, head down to the level, explain how to use the scale, how to estimate numbers between lines and what accuracy to aim for (e.g to nearest 1 or 5 degrees C.) Carousel of measuring temperature - explore different ways to measure temperature e.g. thermometer in water, digital thermometer, forehead thermometer, data logger. Observe children’s measurement using thermometers in water.</p> <p>Adapting the activity Support: Ask to measure to the nearest number on the scale. Extension: Ask to repeat measures and suggest reasons for any similarities or differences.</p> <p>Key Questions</p> <ul style="list-style-type: none"> Where are you holding the thermometer? What happens when you put the thermometer in colder/hotter water? Which thermometer do you think is the most accurate? Has the temperature changed? How? 		
<p>Assessment Indicators</p> <p>Not yet met: Recognise there are different ways to measure temperature. Begin to make measurements, e.g. may need support to read numbers or may need to be reminded to keep thermometer in water. Not consistent in their readings, e.g. may be touching the forehead thermometers or glass end.</p> <p>Meeting: Make reasonably accurate measurements of temperature independently using units of measurement.</p> <p>Exceeding: Can explain advantages and disadvantages of different measuring equipment, e.g. inaccuracy of forehead thermometer. Suggests other factors affecting readings (where held) and ways to improve measurements (repeat readings).</p>		