

Sources of heat energy and examine how temperature changes when...

identify sources of heat energy and examine how temperature changes when heat energy is transferred from one object to another

Learning intention

- identify sources of heat energy and examine how temperature changes when heat energy is transferred from one object to another

Teach and model

- exploring how we sense heat and identifying sources of heat such as the sun, fire, electrical devices and geothermal springs
- recognising that changes in heat energy can be measured using a thermometer
- observing and, with assistance, measuring, what happens when a cold object is placed in direct contact with a warm object and proposing explanations

Check understanding

- Explain the main idea in sources of heat energy and examine how temperature changes when... using an example.
- Show the idea in a second way: with words, a model, a diagram or symbols.
- Apply the idea to a short unfamiliar situation and justify the result.

Teaching cautions

- Ask the student to explain their choice, not only state an answer.
- Check that key vocabulary is understood in a new example.
- Mix representations so the skill is transferred rather than copied.

Quick lesson sequence

- Connect to prior knowledge and introduce the key vocabulary.
- Model one clear example, then solve a second example together.
- Finish with an independent check and a short student explanation.