

CONDUCTION IN ACTION

Your job is to test how heat moves through different materials to see which one transfers heat fastest.

Hands-On Activity Steps

Gather three spoons — metal, plastic, and wooden.

Fill a cup or bowl halfway with warm water (not hot).

Place all three spoons in the water at the same time.

Wait 2–3 minutes, then carefully touch the handles.

Record which spoon feels warmest first.

Student Questions

Which spoon heats up the fastest?

Why do you think that happens?

How does heat move through different materials?

Journal Prompts

Draw the three spoons and label which one was the best conductor.

Write:

"Heat moves fastest through _____ because _____."

NGSS Guiding Questions

What is the phenomenon? Heat moves through materials at different rates.

What data or evidence do I observe? The metal spoon becomes warm first.

What can I conclude or design? Metals conduct heat better than wood or plastic.

Teacher Note

This experiment shows how thermal conduction works — the transfer of heat through direct contact. Students observe that not all materials heat up at the same rate, reinforcing the difference between conductors and insulators.

Conduction in Action Observations

Use this worksheet to process and evaluate your observations.

Material	Did it get warm?	Is it a conductor or an insulator?

Which spoon heated up the fastest? _____

Why do you think that happened? _____

How does heat move through different materials? _____