

States of Matter (Part 1)

Construction

Prior Knowledge

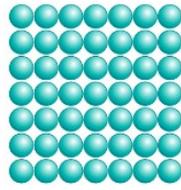
Year 2: Use of everyday materials - The shape of some materials can be changed when they are stretched, twisted, bent and squashed. It is harder to change the shape of certain materials.

Year 1: Everyday materials - Materials can be hard/soft, stretchy/stiff, shiny/dull, rough/smooth, bendy/not bendy, waterproof/ not waterproof, absorbent/ not absorbent and opaque/ transparent.

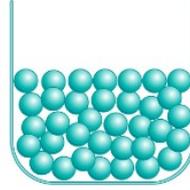
Reception: Different materials are used for different purposes.

Future Knowledge

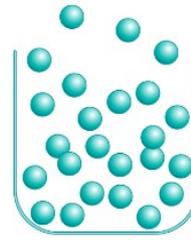
Year 5: Properties and changes of materials - We can describe properties of solids, liquids and gasses by observation.



Solid



Liquid



Gas

My Component Knowledge:

Lesson 1: I can use my prior knowledge to explain differences between materials.

Lesson 2: I can explain what the properties of solids, liquids and gasses are.

Lesson 3: I can identify similarities and differences between each state of matter.

Lesson 4: I can name and define the process when a material changes state.

Lesson 5: I can use scientific equipment to measure temperature

Lesson 6: I can plan a fair experiment to investigate melting.

My Composite Knowledge:

I know that all materials are made up of particles and that some materials can change states. I know that water moves in a cycle and can exist in all three states of matter at different parts of the water cycle.

My Powerful Knowledge:

I understand the processes that take place when materials change state and that they are caused by a change in temperature. I can name these processes and explain where we often see them in daily life.

Key Vocabulary

Tier 1: solid, liquid, gas, ice, rain, clouds

Tier 2: state, water cycle, melting, freezing, boiling, particle, thermometer, prediction, conclusion

Tier 3: evaporation, condensation, precipitation, boiling point, melting point



How do materials change state?

Is this plastic bottle empty?

