



Solids & Liquids — Year 3 Science

A guide for parents · Australian Curriculum

- ✓ **You can help!** Your kitchen is a science lab! Water, ice, butter and chocolate are all around us — and your child is learning exactly why they behave the way they do. You do not need to be a scientist to explore this together.

Why are we learning this? Living in the Top End

Up here in the north, solids and liquids are part of everyday life. Ice in the esky keeps food and fish fresh in the heat. Water from the wet season turns to steam in the sun — that's evaporation happening right in front of you! When you boil water on the stove, you're using heat to change its state. Understanding how things melt, freeze and evaporate helps your child make sense of the world around them, from the big wet season rains to the ice in their drink bottle.

WHAT YOUR CHILD IS LEARNING — BY THE END OF YEAR 3 THEY CAN:

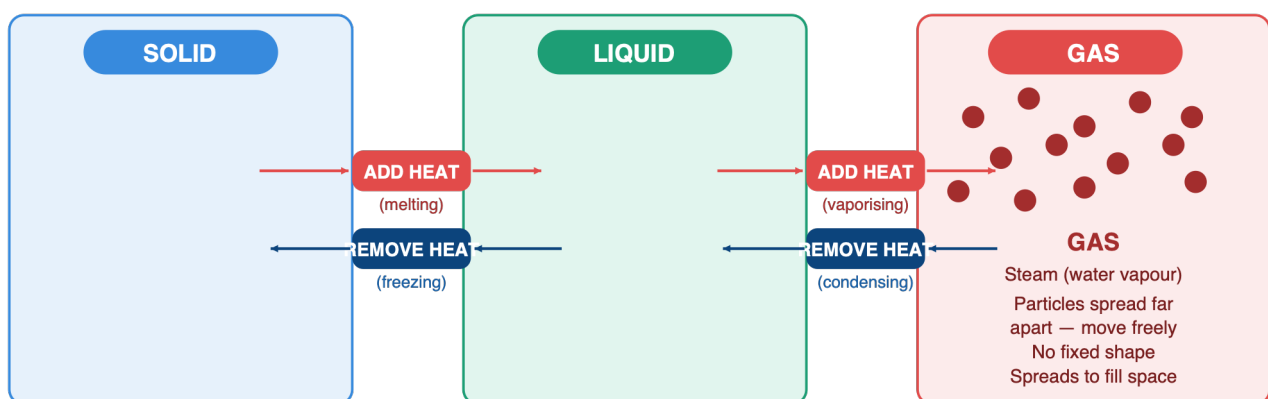
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| ✓ Describe what solids and liquids look like and feel like | ✓ Sort everyday objects into solids and liquids |
| ✓ Explain what happens when heat is added or taken away | ✓ Use science words like melting, freezing and evaporating |

SOLIDS & LIQUIDS — WHAT IS THE DIFFERENCE?

SOLID	LIQUID
Has a fixed shape — stays the same You can hold it in your hand Does NOT flow or pour Examples: ice, rock, wood, spoon, brick	Takes the shape of its container You cannot hold it — it flows Flows and pours Examples: water, juice, milk, melted butter

HOW HEAT CHANGES THINGS — FROM SOLID TO LIQUID TO GAS

How heat changes things — Solids, Liquids and Gases



CHANGE OF STATE — WHAT YOU SEE AT HOME

 Melting <i>e.g. ice becomes water, butter melts in a pan</i> Add heat → solid becomes liquid	 Freezing <i>e.g. water becomes ice in the freezer</i> Remove heat → liquid becomes solid	 Evaporating <i>e.g. puddles disappear after rain, wet clothes dry</i> Add lots of heat → liquid becomes gas
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Think Like a Scientist! — Easy Home Activity

Scientists ask questions, make predictions and then test their ideas. Try this with your child:

1. **PREDICT** Ask: "What do you think will happen to this ice cube if we leave it on the bench?"
2. **OBSERVE** Watch the ice cube together. Ask your child to describe what they see as it changes.
3. **MEASURE** Use a clock or timer — how long did it take to melt? Was it faster in the sun?
4. **EXPLAIN** "Can you tell me what happened and why?" — let your child use their science words!

Questions to ask your child at home

Tip: let your child be the expert — ask them to explain it to you!

- > Is this a solid or a liquid? How do you know?
- > What would happen to butter if we left it in the sun?
- > How does water turn into ice? What needs to happen?
- > Why do puddles disappear after it rains?
- > Can you think of something that can be both a solid AND a liquid?
- > What science word describes ice turning into water?

Tip: You don't need to know the answer — just listen and encourage your child to explain their thinking. That IS science!

KEY WORDS

Word	Meaning
Solid	Has a fixed shape — does not flow (e.g. ice, wood, rock)
Liquid	Takes the shape of its container — flows and pours (e.g. water, milk)
Gas	Spreads out to fill any space — hard to see (e.g. steam, air)
Melting	A solid turns into a liquid when heat is added
Freezing	A liquid turns into a solid when heat is removed
Evaporating	A liquid turns into a gas when a lot of heat is added
Properties	Things you can observe about an object — colour, shape, texture, how it flows

What school will check

Your child needs to sort solids and liquids by their properties and explain what happens when heat is added or removed.

Science inquiry at home

Ask your child to predict, observe and explain. Encourage them to ask 'Why?' and 'What if?' — this is exactly what scientists do!

Try it at home!

Freeze water into ice. Then leave it out. Watch it melt. Try it in the sun vs the shade — is there a difference?