

Float or sink?

Lesson at a glance

Hold up a toy boat and a stone and take hands-up guesses before anything gets wet. Teach float and sink with big hand gestures, then drive the float-or-sink interactive so the class predicts for cork, spoon, stone, sponge and toy boat. Groups place each object gently in a water tray, watch, and call what they see. Revisit the interactive guesses, sort a dry set into float and sink hoops, and finish on the Investigation Journal picture-sort page.

Learning objectives

- Guess then watch whether everyday objects float or sink in water
- Sort objects into float and sink groups

Before the bell – prep

Fill shallow trays and lay towels under and beside them. Gather two matching sets of cork, metal spoon, stone, clean sponge and small toy boat — one for water, one kept dry for the hoop sort. Set two floor hoops ready. Have Investigation Journal pages to hand.

Materials

Item	Qty	Per	Source	Low-cost substitute
shallow water tray or large washing-up bowl	1	group	classroom	a clean cat-litter tray or deep roasting tin used only for water play
cork	2	group	supermarket	a bottle cork or a small piece of polystyrene packing
metal spoon	2	group	classroom	a metal key or clean metal bottle lid
smooth stone	2	group	outdoors	a clean glass marble or a metal washer
clean sponge	2	group	supermarket	a piece of clean foam packing or a dry face cloth scrunched into a pad
small toy boat	2	group	classroom	a foil boat folded by the teacher before the lesson, or a plastic bottle lid
towels	2	group	classroom	old tea towels or a roll of kitchen paper
sorting hoops (or two shallow trays)	2	class	school kit	two empty trays or two clear floor spaces, marked the same way with the boat and the stone
Investigation Journal page	1	pupil	provided printable	a blank page folded in half with a float side and a sink side

Safety watch-point

Adult at every water station. Sleeves up before play; wipe spills at once and watch slippery floors. Nobody tastes the water; hands washed at tidy-up.

Teaching moves

- **Float and sink:** Say float with a flat hand on the water surface and sink with a swooping-down hand; invite the class to copy once. Keep language to those two words only, and note aloud that size alone is not the rule — we watch each object.
- **Guess on the board:** Drive the float-or-sink interactive in explore mode. Hold up each real object, take a class call of float or sink, then tap the matching guess. Do not drop anything on screen until every object has a prediction; leave all guesses visible for later.
- **Water tray play:** Model the full spoken cycle with the cork only: wonder, predict, place gently, see, name. Then each child places one object, says float or sink, and the next child goes. Cheer surprises; if only one adult, rotate small groups while the rest watch and call.
- **Watch what the water did:** Gather at the IWB, scroll back to the guesses, and drop each object so the result sits beside the prediction. Ask which stayed up, which went down, which matched, and which surprised — oral only, revoice float and sink.
- **Sort into two hoops:** Mark the float hoop with the toy boat and the sink hoop with the stone. Children take turns placing one dry object and saying float or sink. If a placement is mixed up, invite another child to try or re-check in the water.
- **Show and draw:** Hand out the Investigation Journal page for a quick picture sort into the same two groups — drawing, colouring or sticking, no words. Circulate and ask each child to point to one floater and one sinker; keep it to about five minutes while the tray and hoops are still fresh.

What it should show

Expect cork, dry sponge and toy boat to float; metal spoon and stone to sink. A sponge may soak and sit lower — still talk about it staying mostly up at first. A tipped toy boat is a shape talk, not a sink: reshape gently and note that boats need a good shape to stay up.

Misconceptions & interventions

- **Big things always sink and small things always float.** — Hold the big sponge beside the small stone after both have been in the water. Point: the big one stayed up, the small one went down — we watch each thing, size is not the rule by itself.
- **If a boat tips or takes on water, children say it sinks like a stone.** — Right the boat, place it again gently, and revoice: it stays on top when the shape is right — that is still floating, not the same as the stone on the bottom.

**Differentiation**

Emerging	Developing	Proficient
• Stay at the teacher tray and place one object with the modelled wonder–predict–place–see cycle spoken with them; pointing float or sink is enough. • On the Investigation Journal page, sort just two picture cards first (boat and stone) before the full set.	• After their turn, ask them to name one more object already tested by a classmate. • Invite them to place a second dry object in the hoops and say the word as they set it down.	• Ask them to point to one classroom object (spoken only) and whisper float or sink with a reason in one short phrase. • Have them notice a surprise result and tell the group which guess did not match what the water did.

Cross-curricular hook

Link to island ferries that stay up on the water, and to early Maths sorting into two groups.