

Sink or Float? · Conversation & classroom guide

Learning with a grown-up · Ages 4–8 · Flexible participation

Can we predict a new object's result before testing it?

Learning aim: Make a prediction, record a floating or sinking result, and compare the two.

A five-minute conversation

Begin with the cork and spoon as results already shown. Name the surface and bottom, then explain that water pushes upward. For a real prediction, an adult chooses a new safe object not shown on the poster and follows the activity below. Welcome an uncertain guess, record the actual result and revisit the idea. Size alone does not tell us what will float.

Remember: Choose one comfortable way to notice or describe a detail. What do you already wonder about this picture?

Start here: Find the cork at the surface and the spoon at the bottom.

Explore further: Explain why one large object's result cannot tell us what all large objects will do.

Which object stays at the surface?

Answer cue: The cork.

Where is the steel spoon?

Answer cue: On the bottom; it sank.

Can size alone tell us what will float?

Answer cue: No. Size alone is not enough.

Keep the idea clear

If trying the poster activity, use a shallow, unbreakable bowl and large, adult-approved objects kept out of mouths. An adult stays beside the child and empties the water afterward.

Try: Predict, test, revisit

Materials: An adult, a shallow unbreakable bowl, a little water and one large safe-to-wet object.

1. An adult chooses one large, clean, nonbreakable object not shown on the poster, such as a suitable plastic toy without batteries or detachable parts, and checks it is safe to wet.
2. Before placing it in a shallow unbreakable bowl, say or draw a prediction: surface or bottom. An adult stays beside the child throughout.
3. Gently test it, record what actually happens and compare with the prediction. Keep objects out of mouths; the adult empties the bowl afterward.

What this can show: Predictions can differ from results. Record what this particular object does, including anything unexpected, without making a rule based on size alone.

Return to it: Describe one thing you would check before predicting what a different object will do.

Sink or Float? · In the classroom

A 20-minute classroom lesson

Prepare: Read the poster, answer cues and misconception note. Prepare only the materials named in the activity; keep a picture-only or described option available.

Words to explore

float — Stay supported at the surface in this example.

prediction — An idea about what might happen before we check.

3 min · Reconnect and wonder: Can we predict a new object's result before testing it? Invite an initial idea; record it without marking it right or wrong.

4 min · Look together: Find the cork at the surface and the spoon at the bottom. Introduce float using the poster.

8 min · Investigate or represent: Use "Predict, test, revisit." Let pairs take turns noticing and recording, with adult help and the activity's stated boundaries.

5 min · Explain and return: Ask the core check: Can we predict a new object's result before testing it? Accept pointing, words, signing or a drawing. If the learner is ready, offer this optional extension: Explain why one large object's result cannot tell us what all large objects will do.

Understanding check: Can we predict a new object's result before testing it?

Answer guidance: A child can make an idea before the test, describe where the object actually ends up and compare the two. A changed idea after observing is a useful outcome. Predictions can differ from results. Record what this particular object does, including anything unexpected, without making a rule based on size alone.

Accept pointing, speech, signing, a drawing or adult dictation. Describe the illustration and use labels/position as well as color. Offer one contrast first, and use the extension when the learner is ready.

A response to keep

My idea or question

What I noticed (date/time if useful)

What I think now / my next question

<https://kiddos.ai/learn/learning-with-gina-and-ollie/sink-or-float>

Our discovery record

Use words, marks, a drawing or an adult's notes. Keep this page with you; nothing needs to be uploaded.

Date / time (if useful): _____

My question or idea

What I noticed

What I think now

What I want to explore next

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