

Disclaimer: Activities with children must always be risk assessed, including for allergies or choking. Children must always have adequate supervision. Resources and materials must always be appropriate for children's age and stage of development.

Activity: Young scientists – floating and sinking

This hands-on activity encourages children to experiment with sinking and floating by testing different objects in water. Through playful exploration, children will predict, observe, and discuss what happens, supporting curiosity and scientific thinking.

Learning aims

- Inspire curiosity by exploring which objects sink or float in water
- Develop language skills as children describe what they see and introduce new vocabulary
- Encourage scientific thinking – asking questions, testing ideas, predicting and making observations.



Resources

- Water tray and water
- A variety of natural objects - leaves, twigs, pinecones, stones, feathers and conkers etc.
- Everyday items such as wooden spoon, plastic bottle lid, sponge, toy boat, metal spoon, cork, paperclip, coin, etc.

Activity outline

- Start the activity by inspiring curiosity as you show the children the objects and ask, "What do you think will happen when we put these in water?"
- Demonstrate with an item and introduce vocabulary 'sink' and 'float'
- Invite children to choose an item to put into the water. Before they place it in, ask them what they think will happen, e.g. "Will it sink to the bottom, or will it stay on top and float?"
- Observe together and take turns to choose different items to experiment with exploring the items which sink and float
- Introduce key vocabulary such as heavy, light, floating, sinking, water, deep, shallow
- See if the children can find something in the setting that floats and something that sinks
- For older children encourage discussion about their experimenting to extend their thinking.

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Extension ideas

- Take learning outside and encourage children to collect a selection of natural and everyday outdoor items, such as leaves, sticks, pinecones, pebbles, flowers, feathers, wellies, buckets, and small toys
- Ask them to predict whether each object will sink or float and sort them accordingly
- Take turns dropping the items into water and observe the results. Discuss any surprises to encourage critical thinking, such as by saying, "I wonder why this didn't sink?"
- Talk about what the floating objects have in common and why some items sink, reinforcing the learning.

NDNA products to support you with this activity

[Little Scientists Leading the Way](#) - online course