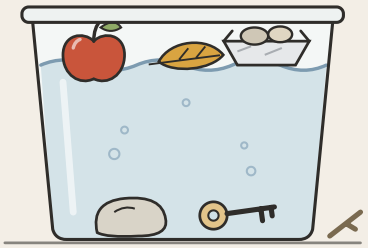
A SPARKATLAS PACK FOR LITTLE EXPLORERS

Sink or Float?

A tub of water, a handful of treasures and one big question: will it sink or float?



INSIDE THIS PACK

02 Grown-up guide: a one-minute read

03 Guess, then test

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05 Build a foil boat

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YOU WILL NEED

A tub, sink or big bowl of water, and a towel

Things to test: a leaf, stick, stone, spoon, apple

Kitchen foil, pebbles or coins, and crayons

TIME

10 to 20 minutes a page. Water play can go on as long as they like.

Our water lab

Date _____ We tested at _____

Weather · Circle one ◯ sunny ◯ cloudy ◯ rainy ◯ windy

AGES Sprout 2–3 Seedling 3–5 Sapling 5–7

Every page has an easier and a stretch idea.

WHY THIS MATTERS

Guessing, testing and telling what happened is the whole of science, in one tub. Every page starts with real water and ends in your child's own words.

Before You Start

A one-minute read for grown-ups.

How to use it (one page a day is plenty)

1. **Set up a splash zone.**
A tub or sink of water, a towel underneath and a basket of things to test.

2. **Guess first.**
Hold each thing up and ask "Will it sink or float?" Every guess is a good start.

3. **Test one at a time.**
Drop it in gently, watch, then tick what happened.

4. **Talk about surprises.**
Surprises are the best part. Ask "Why do you think it did that?"

Three ways to play

Sprout 2–3

Drop things in and watch, say "float!" or "sink!" and point to the picture.

Seedling 3–5

Guess and tick, build a foil boat and count the pebbles it carries.

Sapling 5–7

Record guesses and results, compare two boats, and write a rule to test.

Little safety notes

Stay right beside your child near water, even a shallow tub. Coins, keys and small pebbles can be choking hazards for little ones: keep them for older children, or test big things only. Mop up spills so the floor isn't slippery.

Printing tips

Page 1 is the cover. To save ink, print pages 2 to 6 only. Slip the pages into a plastic sleeve to keep them dry. Letter or A4.

Wonder out loud together

- What do you think will happen?
- Why do you think it floated?
- Can a heavy thing float?
- How could we make it sink?

FOR GROWN-UPS

A wrong guess isn't a mistake: it's a discovery. If your child wants to test the same thing twice, let them. Repeating a test is what scientists do.

Guess, Then Test

Will it sink or float? Guess first, then try it in the water.

Tick a box under each picture: first what you think, then what really happened.

The pictures mean: floats sinks

	I THINK	IT DID
Fallen leaf	☐	☐
Stick	☐	☐
Stone	☐	☐
Apple	☐	☐
Metal spoon	☐	☐
Coin	☐	☐
Pinecone	☐	☐
Feather	☐	☐
Your choice: _____	☐	☐
Your choice: _____	☐	☐

✦ Why does an apple float?

An apple is full of tiny pockets of air. That makes it lighter than the same amount of water, so it bobs up.

Talk about it

Was anything a surprise?
What do the floaters have in common?
Does a big thing always sink?

FOR GROWN-UPS

Guessing before testing turns play into a real experiment: predict, test, compare. A wrong guess teaches as much as a right one.

PLAY IT YOUR WAY

Easier: Test just three things and say “float!” or “sink!” together.
Stretch: Find something big that floats and something small that sinks. Why do you think that is?

04

Look Closely

Pick one floater and one sinker. How are they different?

Draw both in the big box. Then look through a magnifying glass, or just very close, and draw a tiny part.

Draw a floater and a sinker



Up close it looks like...

Its colours

It feels... _____

I think it floats or sinks because... _____

FOR GROWN-UPS

Describing how things feel (heavy, hollow, smooth, full of holes) gives children the words scientists use. Their "because" may be wrong, and that's the point: it's a theory they can test.

PLAY IT YOUR WAY

Easier: Hold one in each hand: which feels heavier? Say the words together.
Stretch: Look for holes, air or hollow spaces in your floater. Draw where you think the air hides.

Build a Foil Boat

How many pebbles can your boat carry before it sinks?

Make a boat, float it, then add pebbles one at a time. Colour a pebble for each one.

1. **Tear off a square of kitchen foil.**
2. **Fold up the edges to make walls.**
3. **Float it and add pebbles, gently.**

Boat 1

Draw its shape

Colour one for each pebble

It held _____

Boat 2

Draw its shape

Colour one for each pebble

It held _____

How a boat floats

Squeeze foil into a tight ball and it sinks. The same foil shaped as a wide boat floats: it pushes lots of water aside, and the water pushes back up.

Talk about it

Which boat held more?
Where did you put the pebbles?
What would you change next time?

FOR GROWN-UPS

This is real engineering: build, test, change one thing, test again. Counting pebbles turns a splashy game into a fair comparison.

PLAY IT YOUR WAY

Easier: Make one boat together and count out loud as your child drops the pebbles in.
Stretch: Make boat 2 a new shape (wider, taller or longer) and guess first which will hold more.

Floaters and Sinkers

Sort everything you tested. Then try to change the result!

Draw, write or tape a small picture of each thing in the right box.

Floaters

Draw or write here

How many? _____

Sinkers

Draw or write here

How many? _____

Can you change it?

Clay that floats
A ball of play dough sinks. Can you shape it into a boat that floats?

The orange test
Float an orange. Then peel it and try again. What happens?

An orange's life jacket

Orange peel is full of tiny air pockets, like a life jacket. With its peel on, an orange floats. Peeled, it usually sinks.

FOR GROWN-UPS

Sorting by what happened (not by size or colour) shows children that a test gives answers. Trying to change a result is the next big step in thinking like a scientist.

PLAY IT YOUR WAY

Easier: Sort real things into two bowls: one for floaters, one for sinkers.
Stretch: Write a rule: "Things float when…" Then test a new object to check your rule.