

Kit list



To carry out these explorations you will need

- ☑ A bright sunny day
- ☑ Water in a bowl, paddling pool or puddle (as wide as possible)
- ☑ Selection of different shaped objects e.g. fork, ruler, pencil, lollipop stick

Time: 20 minutes



Important words to understand:

- | | |
|-----------|------------|
| • Water | • Shadow |
| • Wet | • Rainbow |
| • Trickle | • Colours |
| • Drip | • Straight |
| • Drop | • Curved |
| • Ripple | • Circle |

Let your child hear you using these words. They will use them too when they are ready.

Watch out!

- Small children can drown in a small amount of water so will need supervision at all times.
- Spills can be slippery so have cleaning cloths ready if you are indoors and help your child to mop them up promptly.



Getting messy

Children's play can get messy at times so be prepared ...

- Know your own tolerance levels; if a mess will lead to you getting cross it will be better for all concerned if you choose a different activity and save the mess for a day when you are feeling more relaxed.
- Teach your child to help you tidy up any mess as it occurs.
- Be prepared with cleaning cloths, flannels or towels to hand so that you and your child can clean up quickly.

Exploring Ripples



- Children love to play with water whether it is in the sink, the bath or outside in a paddling pool or puddle. Occasionally joining their play can help extend their learning whilst exploring this exciting medium.
- Notice and comment upon the patterns that ripples make on the surface of water. These are much more obvious on a bright sunny day.
- Experiment with different ways to make ripples such as dripping water onto the surface, touching the surface lightly with a finger or pencil point or using other objects such as the tines of a fork, a ruler or the bristles of a washing up brush.
- Experiment with making ripples with different object. Notice the shape of the ripples and how they change as they move away from the starting point.
- Notice the shadows of the ripples and any bubbles that form on the surface. Talk about the patterns they form.
- Encourage your child to think about what might happen to a tiny piece of paper floating on the surface when it is hit by the ripples. They may be surprised to notice that it bobs up and down but is not carried away by the ripples.

Questions and Answers

It can be hard for adults to admit that they cannot explain something. However, even scientists can't explain everything. Curiosity and the ability to ask questions are more important than having all the answers.

It's OK to just say

"I don't know. How can we find out?"



Industry IN SCHOOL!

Careers and role play opportunities

Naval architects – Design boats and ships. They think about the boat's shape and the way that it moves through water as well as what they are made of. Why not recruit a team of naval architects to make boats from plasticine, playdough and junk to see which materials make the best boat? Children can try different shapes to see what difference this makes to their boats. They will need to test their boats in choppy waters, not just when it is calm!



Who are the customers who will buy their boats?

What will they need the boats to be able to do?

How will they tell people about the wonderful boats that they have made?

Child initiated play

- It is good practice to have the water tray available every day, ideally both indoors and outside.
- Where possible, let children take items from one area of the classroom to another, e.g. from the construction area to the water tray. That way they can find out that the metal cars sink, the wooden one floats but the one that they made from playdough just disintegrates!
- Children might notice that although both feathers and lollipop sticks make ripples when dropped onto the surface of the water, the ripples are different shapes.
- Provide a good selection of equipment for children to help themselves (this is more manageable if children are taught to 'choose it, use it and put it away' so that you don't end up with EVERYTHING in the water tray quite so often.
- Allow plenty of time for tidying up. Support children to do this by giving them specific instructions such as 'Maria, please take the lollipop sticks back out of the water and put them in the drawer where you got them from' rather than just 'It's time to put everything away'.

TAKING IT FURTHER

Follow up activities:

- When you're out and about look for larger bodies of water where you can experiment with making ripples. You may be able to start two or more sets of ripples and see what happens when they cross each other.



Encourage children to notice other sorts of ripples – such as the wake left by a duck or boat, the ripples created by the wind on a lake or even the ripples left in the sand as the sea recedes.

Things to wonder ...

- I wonder why the ripples are that shape?
- I wonder what would happen if we dropped a stone in the water?
- I wonder how we could make a bigger ripple.

