Water

Can water go through it? Does it float? Can we separate it? What happens to the water? How can we make big bubbles?



Materials

Is it soft or hard? Does it bend? Is it transparent? Does it roll? Can we dry things with it?



Living things

Where do they live? How many legs do they have? What lives in the water? What do they eat? Whose eggs are they?

Sample copy with answers THIN



CAN WATER GO THROUGH IT?

OBJECTIVE

1

Children see that water can go through some objects.

MATERIALS

- containers with water
- different objects, some which allow water to pass through and others which don't (colander, pot, slotted spoon, funnel, sieve, ladle)

- Put the children in small groups with a container of water and let them play with it. Ask: *Can water go through your hands?*
- Hold up one of the objects and ask: Can water go through it? The children predict.
- Give the children the objects and let them experiment freely for some time.
- Ask them to draw a tick (\checkmark) next to the objects that water can go through on Worksheet 1.



DOES IT FLOAT?



OBJECTIVE

Children begin to understand why some things float.

MATERIALS

- containers with water
- wooden peg, plastic peg, metal spoon, plastic spoon, rubber ball, glass ball (marble)

- Present the materials and say: *Two pegs, two spoons, two balls.* Using actions, teach *float* and *sink.*
- Children take turns to choose an object and ask the class: *Does it float?* They put the objects into two groups: *float* or *sink*.
- Then, let them experiment freely for some time.
- Ask the children to stick the stickers at the top or bottom of the fish tank depending on whether they float or sink on Worksheet 2.





CAN WE SEPARATE IT?

OBJECTIVE

Children see that we can separate some mixtures but not others.

MATERIALS

- transparent plastic cups with water
- plastic spoons and plates
- sieve
- chocolate powder, rice, lentils, paprika

- Present the materials. Add the lentils to the water. Stir the mixture.
- Show the children the sieve. Ask: Can we separate the lentils?
- Pour the mixture through the sieve and show them the lentils. Ask again: *Can we separate the lentils?* Do a thumbs up action.
- The children do the same with the other substances.
- Ask the children to stick a thumbs up sticker in the circle if they can separate it and thumbs down sticker if they can't on Worksheet 3.



WHAT HAPPENS TO THE WATER?

OBJECTIVE

Children predict and test how liquids behave.

MATERIALS

- plastic bottle with lid, half-filled with water
- block
- dye to make the water more visible (optional)

- Ask the children to look at the three bottles of water at the top of Worksheet 4. Using actions, say: *This bottle is standing up, this bottle is lying down and this bottle is leaning on its side.*
- The children make a prediction. Say: *Look at the water. Is it correct? Think*. Using actions, say: *Draw a tick* (✓) *or a cross* (✗).
- Present the materials and then let them experiment freely.
- Ask them to draw their findings in the empty bottles at the bottom of Worksheet 4. Say: *Now, draw the water.*





HOW CAN WE MAKE BIG BUBBLES?

OBJECTIVE

Children see that the size of bubbles depends on what we use to make them.

MATERIALS

- a container with washing-up liquid and a little water
- funnel, wire circle, cone, bubble wand

- Show the children how to make bubbles. Make a small bubble. Ask: *Is this a small bubble or a big bubble?* Make a big bubble. Ask again: *Is this a small bubble or a big bubble?*
- Present the materials. Say to a child: *Make a big bubble.* They choose the funnel or the wire circle. Then, this child gives an instruction to the next child.
- Ask the children to circle the objects that make big bubbles on Worksheet 5.





OBJECTIVE

Children classify materials according to their characteristics.

MATERIALS

- two containers
- soft and hard materials (sponge, foam ball, cuddly toy, pencil, wooden block, plastic block)

- Present all the materials to the children. Using actions, ask: *Which materials can we squash? Which materials can't we squash?*
- Give out the materials and let the children experiment freely for some time in groups. Say: *Try to squash it.* The children take turns. Ask: *Is it hard? Or is it soft?*
- Then they organise the materials into the correct container.
- Ask the children to put the stickers in the correct place on Worksheet 6.





OBJECTIVE

Children see the behaviour of some materials when we apply forces.

MATERIALS

- stone
- rubber
- plasticine
- dough (flour, water and oil)
- toilet roll tube

- Present the materials. Ask: Can we bend it? The children predict.
- Give the children the materials and ask them to experiment. Say: Try to bend it.
- When they have finished, ask them to present the materials. Say: *Show me materials that bend. Show me materials that don't bend.*
- Ask the children to put a sticker on the materials that bend on Worksheet 7





IS IT TRANSPARENT?

OBJECTIVE

Children see how different materials respond to light.

MATERIALS

- four different types of bottles: transparent plastic bottle, opaque plastic bottle, transparent glass bottle and coloured glass bottle (or simply coloured plastic instead of glass)
- torch (optional)

- Present the materials to the children. Pass them around and ask: *How many plastic bottles? How many glass bottles?*
- Show them that the window is transparent but the blind is not. Put your hand behind it and ask: *Can you see my hand? Yes, the window is transparent!*
- Now ask them to predict with the bottles. Ask: *Is this bottle transparent?* Give the materials to the children and let them experiment.
- Ask the children to look at the bottles on Worksheet 8 and draw a tick (✓) or a cross (✗) in the box next to it.





OBJECTIVE

Children see that some objects roll and others slide.

MATERIALS

- a ramp
- ball
- toilet roll tube
- different shaped blocks

- Make a low ramp and present the materials. Using actions, ask: Does it roll? Or does it slide?
- Give the materials to the children and ask them to predict. The children experiment with the materials.
- Then make a high ramp. Ask again: *Does it roll? Or does it slide?* The children experiment again.
- Ask the children to circle the objects that roll on Worksheet 9.



CAN WE DRY THINGS WITH IT?

OBJECTIVE

Children see that some materials absorb water and others don't.

MATERIALS

- sponge
- foam ball
- towel
- plastic bag
- plasticine
- a tray and some water

- Present the materials. Pass the materials around and ask the children to look, touch and describe the materials. Ask: *Is the towel soft or hard?*
- Show them the wet tray and say: It's wet! Using actions, ask: Can I dry it with the plastic bag?
- Give the children the materials to experiment.
- Ask the children to match the absorbent materials to the wet tray on Worksheet 10.





OBJECTIVE

Children see that animals live in different places.

MATERIALS

• pictures of animals with tape or sticky tack to stick them

- Present the animal pictures to the children and say the names.
- On the board, draw a natural habitat with land and water. Point to the different areas and say: *In water, on water, near the water, on land.*
- Pick one of the animal pictures, show it and ask: *Where does a (spider) live*? The children answer and a volunteer sticks the animal picture on the natural habitat on the board. They chose the next picture and ask the other children same question: *Where does a (cow) live*?
- Move the animal pictures to different places and ask: Can it live here?
- Ask the children to stick the frog, snail, fish, dragonfly, and duck stickers on Worksheet 11.



HOW MANY LEGS DO THEY HAVE? 12

HOW MANY LEGS DO THEY HAVE?

OBJECTIVE

Children see that some animals have legs and others don't and begin to understand that they move in different ways.

MATERIALS

• pictures of animals

- Present the pictures to the children and say the names.
- Using actions, ask: How do (elephants) move? Do they walk, jump, swim, or slither?
- Show a child one of the animal pictures and ask them to imitate it. Ask the other children: *Do they walk or jump, swim, or slither?*
- Show the picture. Ask: How many legs?
- Ask children to write the number of legs each animal has on Worksheet 12.



WHAT LIVES IN THE WATER?



13

WHAT LIVES IN THE WATER?

OBJECTIVE

Children identify plants and animals as living things.

MATERIALS

- plants
- pictures of animals
- rock

- Before the class, put the materials around the classroom.
- Using actions say: *Living things grow.* Ask the children to move around the classroom and find living things. Say: *Let's look for things that grow!*
- Then, the children present all the things they have found. Ask: Does it grow? Yes, it's a living thing.
- Show the children the rock. Say: *It doesn't grow, it isn't a living thing.* Ask the children to name other things in the classroom that aren't living things.
- Ask the children to circle the living things on Worksheet 13.



WHAT DO THEY EAT?



WHAT DO THEY EAT?

OBJECTIVE

14

Children begin to understand animal nutrition and food chains.

MATERIALS

- foods from plants (lettuce, olives, banana, nuts)
- foods from animals (ham, tuna, milk)
- pictures of animals that eat these foods

- Before the class, ask the children to bring a piece of food from home, or provide the materials listed.
- Present the materials. Ask: Where does tuna come from? And olives? And ham? And milk?
- Ask the children to classify the foods. Say: *Which foods come from plants? And from animals? We eat plants and animals.*
- Ask: What do animals eat? Give the children the pictures. They present their animal.
- Say: *It's lunchtime!* Pick up a food and ask: *Who eats (nuts)?* Children show their pictures if they think their animal eats it. Choose a child to tell the other children: *The bird eats nuts.*
- Ask the children to stick the correct food sticker on the animal's plate on Worksheet 14.
- Have a class picnic.



WHOSE EGGS ARE THEY?





WHOSE EGGS ARE THEY?

OBJECTIVE

Children see that some animals are oviparous.

MATERIALS

- different types of eggs (chicken eggs, quail eggs, fish eggs)
- pictures of animals

- Show the eggs to the children and say: *Look! What colour are they? Are they big or small? How many are there?* The children talk about the eggs.
- Ask the children to guess whose eggs they are. Then explain. Say: Birds, fish and insects lay eggs.
- Then, hand out the pictures of animals. Ask children to make two groups: eggs or no eggs.
- Ask children to look at the stickers for Worksheet 15 and say: *Are (snail)'s eggs big or small? Are (snail)'s eggs in water or on land?*
- Ask the children to stick the correct animal with its eggs on Worksheet 15.