



The InvestiGator Club™ Prekindergarten Learning System

Investigations

PARENT'S
EDITION

Integrated Activities for Exploring, Experimenting,
and Making Discoveries

Wet and Wonderful Water



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Part 3

What Sinks and Floats?

Tell your child: *Now that you have discovered what water is like by looking at water, listening to water, painting and cooking with water, and pouring and moving water, it's time to do some more investigating! During this Investigation we'll do lots of experimenting to learn about things that sink and float in water. We'll also do some other fun activities with water. Are you ready? Let's investigate!*

Science

Your child experiments to see which objects will sink and which will float.

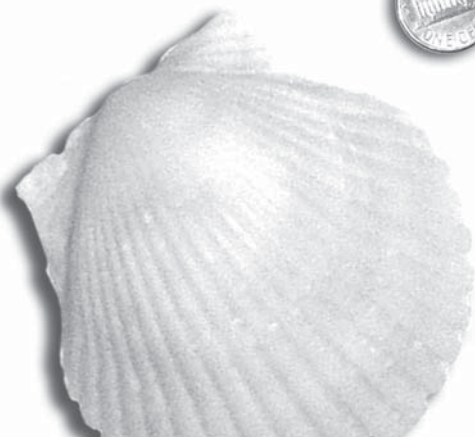
Materials

- assorted objects such as a rubber band, penny, marble, bottle cap, plastic spoon, sponge, toy car, block, soap, paper clip, plastic toy, eraser, shell, rock, feather, a plastic bottle, a plastic bucket
- basin of water or water table partially filled with water
- [Sink or Float? Activity Sheet](#)

Will It Sink or Float?

Introduce the Investigation by asking your child to tell what is known about sinking and floating. *Floating is staying at the top of the water. Sinking is going to the bottom.* Work with your child at the sink. Pick up one of the objects. Ask: *Do you think it will sink or float?* Place the object in the water and ask your child to describe what happens.

- Let your child test different items, each time first guessing what will happen and then placing the object in the water. *What happened? Does it sink or float? Did you guess right?*
- Print out the [Sink or Float? Activity Sheet](#). Have your child draw a picture of each object that was tested in the correct column.
- *Look at the things that sink. Look at the things that float. Why do you think some things float and others don't?*
- *Does it matter how big the object is? Does it matter how small it is? How can you find out?*
- *Does it matter how heavy the object is? Does it matter how light it is? How can you find out?*
- *Does it matter what the thing is made of? What its shape is? How can you find out?*
- Let your child test ideas in further investigations.



Literature/Language

Your child will enjoy listening to a classic, rhyming, predictable book.

Materials

- a copy of *Who Sank the Boat?* by Pamela Allen

Who Sank the Boat?

Display the cover of *Who Sank the Boat?* and read the title. After reading the first sentence of the story, ask your child to guess which animal will sink the boat. Read the rest of the story, inviting your child to join in on the refrain, "Do you know who sank the boat?" Ask questions such as:

- *Which animal went in the boat first?* (the cow)
- *Which animal went in the boat last?* (the mouse)
- *Did the animals go in the boat from heaviest to lightest, or lightest to heaviest?* (heaviest to lightest)
- *Do you know who sank the boat?* (Responses may vary—the mouse did, everyone did.)
- *Would the mouse have sunk the boat if he had gotten on in any other position than last?* (Responses will vary.)

Science/Math

Time for more investigating with sinking and floating.

Materials

- aluminum foil
- pennies
- basin of water or water table
- paper
- crayons

Will the Boat Float?

Have your child put a penny inside a piece of aluminum foil and crumple it into a ball. Leave another piece flat. Ask your child: *Do you think they will sink or float? Then try by placing them in a sink with water. Do they sink or float?*

- Have your child make a boat from a sheet of foil by turning up the edges and shaping it to form a boat. Remind your child to seal the edges so the boat does not leak.
- *Put your boat into the water. Does it float?*
- *Carefully put a penny in your boat. How many pennies do you think your boat can hold before it sinks?*
- *Slowly add pennies one at a time. Make a tally mark on your paper for each penny. (Show your child how to do this.)*
- *Count the tally marks. How many pennies did it take to sink? Is this like your guess?*
- Have your child think about the results. *Does the shape of the boat matter? Does it matter where you put the pennies?*
- *Can you build a boat that will hold more pennies? Should the boat be wider, taller, longer?*
- Get an empty plastic bottle and show your child how it floats. Then ask: *Can you make it sink?* (You can make the bottle sink if you fill it with water.)



Music/Science

Create different sounds made by water in bottles.

Materials

- three tall glass bottles, all the same type
- metal spoon

Water Music

Ask your child if a bottle sinks or floats. Lead him or her to remember what was learned during the investigation, that it depends. For example, if it is a plastic bottle and it is empty, it may float; if you add water to it, it may sink. Tell your child that in this activity, we will find out how adding water to a bottle can make music!

Have your child help you fill one bottle almost to the top, fill one halfway, and add just a little water to the third bottle. Ask your child to gently tap the side of each bottle with the side of the metal spoon. *What do you hear? Which bottle makes the highest sound? Which bottle makes the lowest sound? How could we change the sound?*

Have your child experiment with more bottles and different amounts of water. Invite your child to tap out a song using the water bottles.

Language/Math

Have your child say and act out the finger play "Five Little Fishies" and then try catching fish!

Materials

- construction-paper fish
- wooden dowel
- large paper clips
- self-stick dots
- string
- small magnet

Five Little Fishies

Teach your child the following finger play.

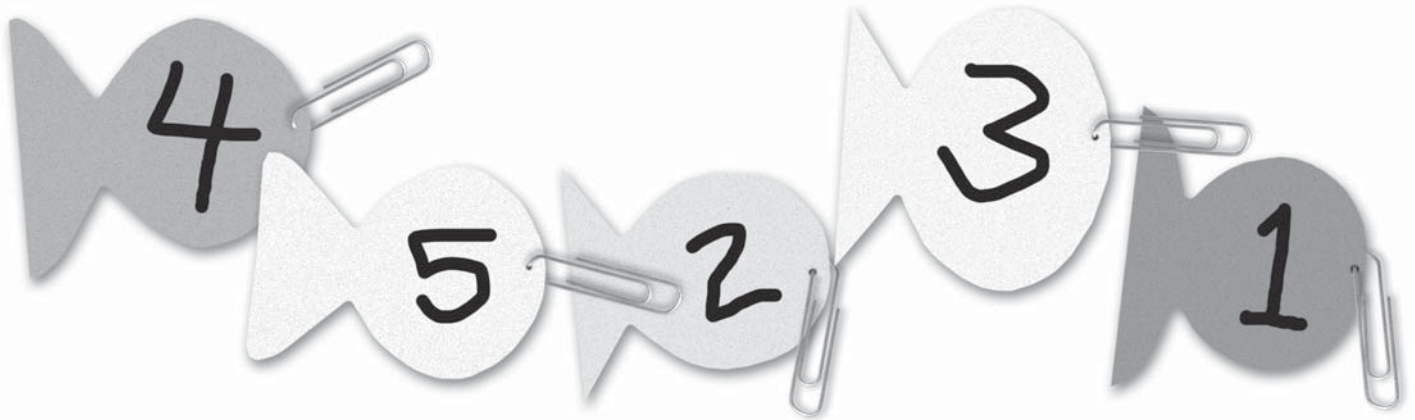
- Five little fishies swimming in a pool, (Wiggle fingers.)*
- The first one said, (Hold up one finger, then wrap arms around body.)*
"This pool is cool."
- The second one said, (Hold up two fingers, then show hand up to chin.)*
"This pool is deep."
- The third one said, (Hold up three fingers, then rest head on hands.)*
"I want to sleep."
- The fourth one said, (Hold up four fingers, then dip hands into water.)*
"Let's take a dip."
- The fifth one said, (Hold up five fingers, then peer out under hand.)*
"I spy a ship."
- Fishing boat comes, (Form "V" with fingers, then move hands away from body.)*
- Line goes ker-splash. (Pretend to throw fishing line.)*
- Away the five little fishies dash. (Wiggle five fingers away.)*

Five Little Fishies (continued)

Now it's time to go fishing! Cut a set of five fish from construction paper. Number the fish from 1 to 5. Have your child help place the corresponding number of self-stick dots on each fish. Attach a large paper clip on the nose of each fish.

To make a pole, tie one end of the string to a wooden dowel and attach the other end to a magnet.

Let your child go fish! As each fish is caught, ask your child to identify the number. When all the fish have been caught, your child can arrange the fish in order from 1 to 5.



Science/Language

Your child will match wildlife with their watery homes.

Materials

- pictures of animals from magazines or coloring books
- blue crepe-paper streamers
- [Watery Homes Activity Sheet](#)
- blue and green crayons or markers

Watery Homes

Beforehand, cut out pictures of animals that live in or near a freshwater pond and a saltwater ocean. Animals for a pond can be: duck, frog, painted turtle, beaver, newt, dragonfly, tadpole. Animals for an ocean can be: whale, shark, octopus, jelly fish, seal, dolphin, lobster.

Your child can help you place crepe-paper streamers on the floor to form a small circle for a pond and a large circle for an ocean. Display all of the pictures. Tell your child that together you will search for animals that belong in a pond or in the ocean.

- Give oral clues for your child to listen to and decide if the animal lives in the pond or ocean. Here are two examples: *Watch out for this saltwater animal with its eight long tentacles.* (octopus) *This busy freshwater animal has strong teeth and a flat tail and uses branches to build a home in the water.* (beaver)
- As your child identifies the animal, have it placed inside the pond or ocean.
- Print out the [Watery Homes Activity Sheet](#). Have your child color the pond animals green and the ocean animals blue.

Language/Gross Motor Skills

Your child uses movement and a hula hoop to identify words that are opposite in meaning.

Materials

- hula hoops

What's My Opposite?

Explain that *sink* and *float* are opposites and that you are going to say some more words and he or she can say the opposites. Start with simple words, such as *open/shut*, *big/little*, *first/last*, *tall/short*. Include words that are related to water and the water experiments: *wet/dry*, *heavy/light*, *empty/full*.

- Give your child a hula hoop or create a hoop using some kind of pliable material. Use the hoop to act out opposite words: *step in/step out*, *hold the hoop high/hold the hoop low*, *step over the hoop/stand under the hoop*, *hold the hoop up/put the hoop down*, *sit inside the hoop/sit outside the hoop*, *hold the hoop to your right/hold the hoop to your left*. Switch roles and have your child give you directions.
- Sing the following song with your child. Sing to the tune of "Twinkle, Twinkle, Little Star." Take turns singing. Have your child sing the missing word:

Child: *Yes, I know my opposites.
I can show what I have learned.*

Parent: *When I say up, you say _____. (Child: down)
When I say in, you say _____. (Child: out)*

Child: *Yes, I know...*

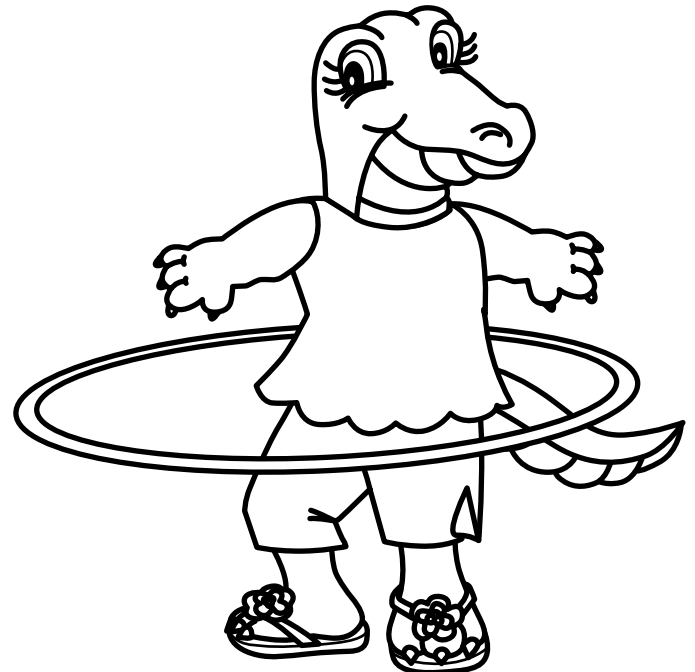
Parent: *When I say empty, you say _____. (Child: full)
When I say go, you say _____. (Child: stop)*

Child: *Yes, I know...*

Parent: *When I say wet, you say _____. (Child: dry)
When I say float, you say _____. (Child: sink)*

Child: *Yes, I know...*

Continue with other pairs of opposites.

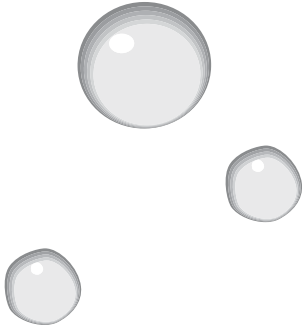


Science/Fine Motor Skills/ Language

Your budding scientist will discover that some things absorb, or soak up, water while others do not.

Materials

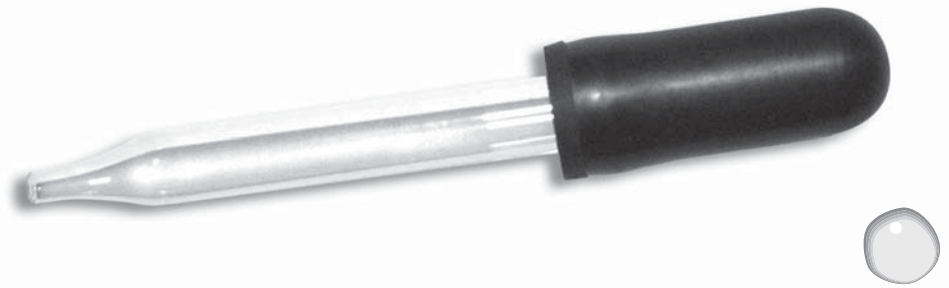
- assorted materials that absorb and do not absorb water
- eye droppers
- [Soak It Up! Activity Sheet](#)



Just Add Water

Tell your child that many animals that live in water have waterproof feathers or skin so they do not absorb, or soak up, water. Demonstrate by putting a drop of water onto the plastic outside portion of a bandage strip. *What happened?* (The water drop stayed on top. The plastic did not absorb the water because it is waterproof.) Next, turn the bandage strip over and put a drop of water onto the cotton portion inside. *Now what happened?* (The water disappeared. The cotton absorbed it. It soaked it up.)

- Have your child experiment to discover how some things absorb water and others do not. Supply pieces of material such as a cotton ball, wool, plastic, aluminum foil, yarn, a paper towel, a cloth towel, a penny, wax paper, and a sponge. Have your child put a few drops of water onto each material. *Did the material absorb, or soak up, the water?*
- Print out the [Soak It Up! Activity Sheet](#). Have your child draw a picture of each object they tested in the correct column.
- *Look at the things that absorb water. Look at the things that do not. Why do you think some things absorb water and others do not?*



Art/Math

Give your child some sponges and let the patterns begin!

Materials

- scissors
- sponges
- large sheets of paper or shelf paper
- tempera paints
- small paper plates

Sponge-Print Patterns

Tell your child that a sponge is an example of a material that absorbs water. *A sponge will absorb paint too.*

- Cut sponges into different shapes.
- Spread out the paper and pour liquid paints onto the plates.
- Show your child how to dip a sponge shape in paint and press the sponge on the paper to make a print.
- Let your child try dipping and pressing sponge shapes. Encourage experimenting: *What happens when you press hard? What happens when you press gently? Try sponge-printing one color over another color. What happens?*
- *Can you use different shapes and different colors of paint? Can you make a pattern? For example: blue circle, red square, blue circle, red circle, blue circle, red circle. What other patterns can you make?*

Extend the concept of things that float to a favorite childhood pastime—blowing bubbles!

Materials

- plastic dish pan
- bubble solution (water, dish detergent, corn syrup or glycerin)
- things for bubble wands

Blowing Bubbles

Tell your child that things in water are not the only things that float. Say: *Name something that floats but it is not in water. Bubbles, of course!* Explain: *Bubbles are bits of air trapped inside a liquid ball. They are so light, they float in air.*

Note: More about water as a liquid and a solid in Part 4!

Involve your child in making a bubble solution. Here is one recipe:

Bubble Solution

6 parts water

2 parts Joy dish detergent

$\frac{3}{4}$ parts light corn syrup

Have your child measure and gently stir the solution in a dish pan.

Hint: Bubble solution can be made ahead and can be saved for another day.

Then find things to use for bubble wands. Anything with a hole will do. Some ideas are pipe cleaners or hangers bent into different shapes, cookie cutters, a funnel, a can open on both ends, a plastic tube, and yogurt lids with the centers cut out.

Tips for bubble-blowing:

- Do not swish the bubble-blower in the solution.
- Blow gently for bigger bubbles.
- Go outdoors on humid days in shady areas. Avoid windy days.
- Make sure the bubble-makers stay wet.

Explore with your child:

- *What shape is the bubble? Does the shape of the bubble match the shape of the bubble-blower?*
- *What colors are the bubbles? Do the colors change?*
- *Touch a bubble with a wet finger. Touch with a dry finger. What happens? What happens when one bubble meets another?*
- *Try blowing a bubble onto a wet plate. Gently place into the freezer. See what happens. Does the bubble freeze?*

Name _____

Sink or Float?

Sink



Float

Investigation: Wet and Wonderful Water/Part 3

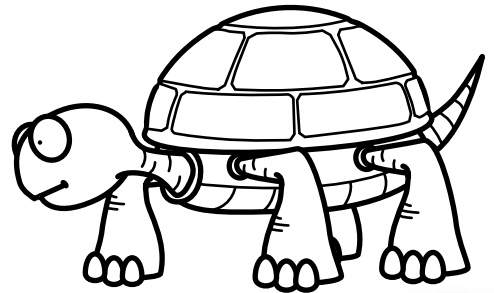
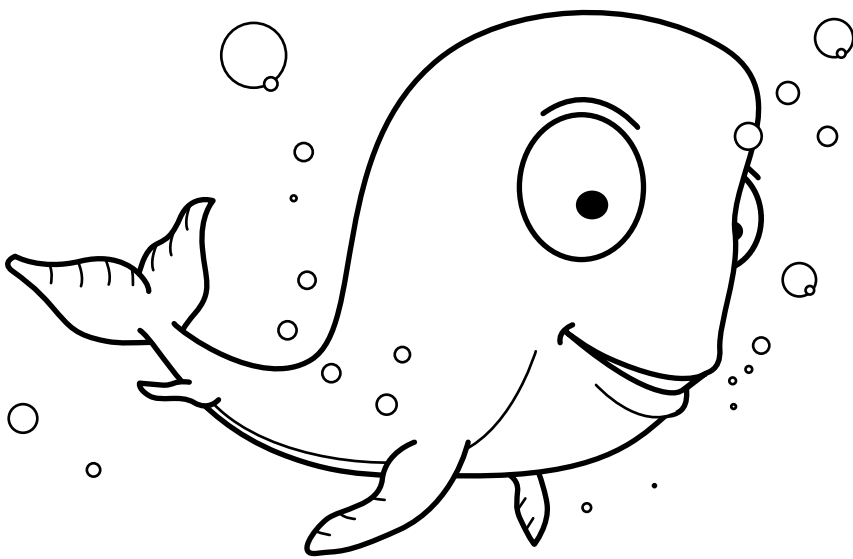
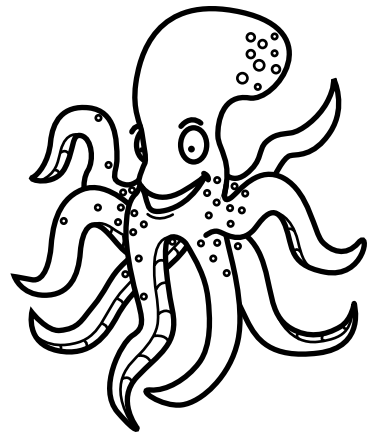
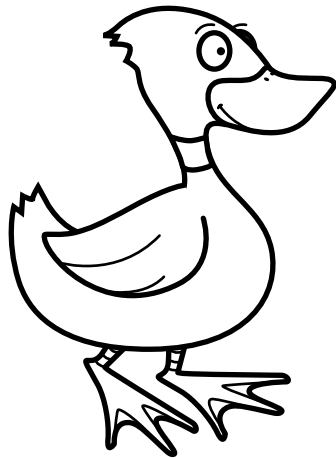
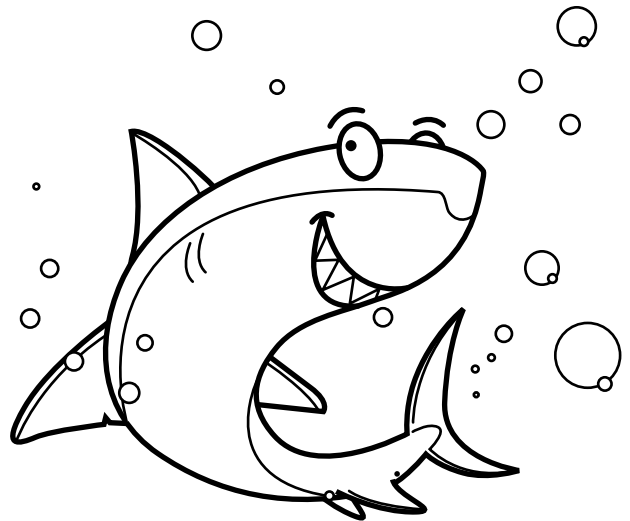
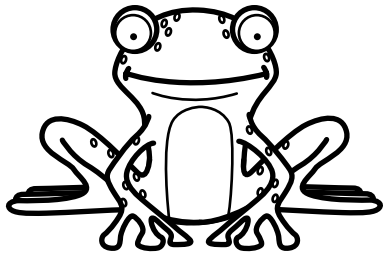
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Name _____

Watery Homes

Color the pond animals green. Color the ocean animals blue.



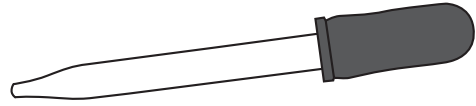
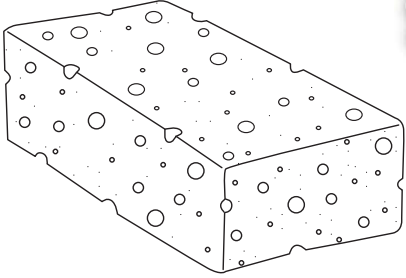
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Name _____

Soak It Up!



**These things
absorb water**

**These things do not
absorb water**

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