SCIENCE · SINK OR FLOAT · GRADES K–2

Sink or Float: Predict and Test

Guess whether eight objects will sink or float, test them in a tub of water and check your guesses.



Name: _____ **Date:** _____

Do it: fill a tub with water. Guess first, then gently set each object on the water and watch.

Object	My guess: sink or float?	What it did	Was I right?
a coin	☐ sink ☐ float		
a leaf	☐ sink ☐ float		
a cork	☐ sink ☐ float		
a rock	☐ sink ☐ float		
a sponge	☐ sink ☐ float		
a spoon	☐ sink ☐ float		
a toy block	☐ sink ☐ float		
an apple	☐ sink ☐ float		

How many did you guess right? _____

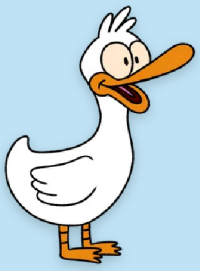
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SCIENCE · SINK OR FLOAT · GRADES K–2

Sink or Float Sort

Cut out ten cards and glue each one under sinks or floats.

Name: _____ **Date:** _____



Glue each card under sinks or floats.

Sinks	Floats

✂ **Cut out the cards on the dashed lines.**

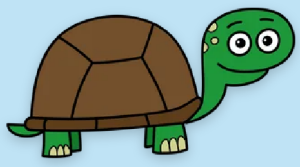
a coin	a leaf	a key	a rubber duck	an apple
a cork	a marble	a feather	a rock	a metal spoon

Art © Kevin Coulston

SCIENCE · SINK OR FLOAT · GRADES 2–5

Clay Boat Challenge

An engineering challenge: shape clay into a boat that floats and holds as many pennies as it can.



Name: _____ **Date:** _____

The challenge: a ball of clay sinks. Can you change its shape so it floats and carries cargo? **You need:** a ball of clay the size of a golf ball, a tub of water and pennies.

1. Ask

Why does the ball of clay sink?

2. Plan

Draw your boat shape.

3. Test

How many pennies did it hold?

Boat	What shape I made	Pennies it held
1		
2		
3		

What shape held the most pennies? Why do you think it worked?

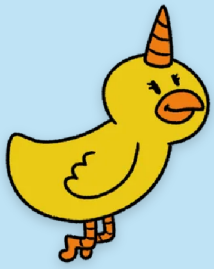
Art © Kevin Coulston

SCIENCE · SINK OR FLOAT · GRADES 1–3

Floating: True or False?

Seven facts about sinking and floating to mark true or false, then explain how a heavy ship floats.

Name: _____ **Date:** _____



Circle True or False.

Heavy things always sink.	True	False
Changing an object's shape can change whether it floats.	True	False
Things float more easily in salt water.	True	False
Air inside something can help it float.	True	False
All metal things sink.	True	False
Most wood floats.	True	False
An apple floats in water.	True	False

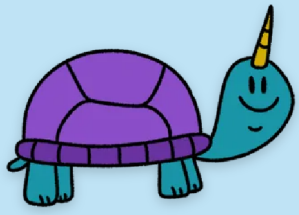
A huge steel ship weighs more than a car. How can it float?

Art © Kevin Coulston

SCIENCE · SINK OR FLOAT · GRADES 3–5

Liquid Density Tower

Pour honey, dish soap, water and oil into a cup, number the layers from bottom to top and draw your tower.



Name: _____ **Date:** _____

You need: a tall clear cup, honey, dish soap, water (with a drop of food coloring) and vegetable oil.
Do it: slowly pour the same amount of each liquid into the cup, one at a time, down the side. Wait and watch. Heavier (denser) liquids sink to the bottom.

1. Write 1 for the bottom layer up to 4 for the top layer.

☐ water

☐ honey

☐ vegetable oil

☐ dish soap

2. Draw and color your tower. Label each layer.

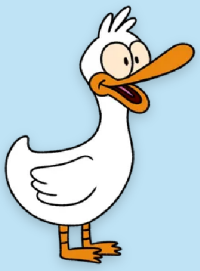
3. Why do you think the liquids stay in layers?

Art © Kevin Coulston

ANSWER KEY · SINK OR FLOAT · GRADES K–2

Answer Key: Sink or Float Sort

Answers for grown-ups. Some questions have more than one good answer.



Glue each card under sinks or floats.

Sinks	Floats
a rock	a feather
a coin	a rubber duck
a key	a leaf
a marble	a cork
a metal spoon	an apple

✂ Cut out the cards on the dashed lines.

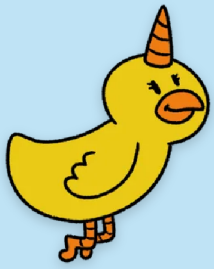
a coin	a leaf	a key	a rubber duck	an apple
a cork	a marble	a feather	a rock	a metal spoon

Art © Kevin Coulston

ANSWER KEY · SINK OR FLOAT · GRADES 1–3

Answer Key: Floating: True or False?

Answers for grown-ups. Some questions have more than one good answer.



Circle True or False.

Heavy things always sink.	True	**False**
Changing an object's shape can change whether it floats.	**True**	False
Things float more easily in salt water.	**True**	False
Air inside something can help it float.	**True**	False
All metal things sink.	True	**False**
Most wood floats.	**True**	False
An apple floats in water.	**True**	False

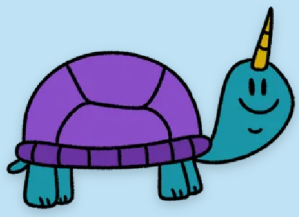
A huge steel ship weighs more than a car. How can it float?

Art © Kevin Coulston

ANSWER KEY · SINK OR FLOAT · GRADES 3–5

Answer Key: Liquid Density Tower

Answers for grown-ups. Some questions have more than one good answer.



You need: a tall clear cup, honey, dish soap, water (with a drop of food coloring) and vegetable oil.
Do it: slowly pour the same amount of each liquid into the cup, one at a time, down the side. Wait and watch. Heavier (denser) liquids sink to the bottom.

1. Write 1 for the bottom layer up to 4 for the top layer.

3 water

1 honey

4 vegetable oil

2 dish soap

2. Draw and color your tower. Label each layer.

3. Why do you think the liquids stay in layers?

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