SCIENCE

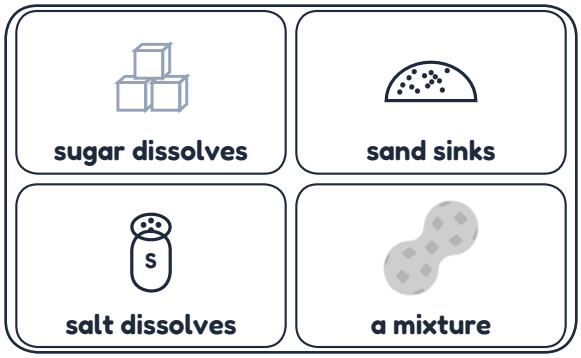
Mixing and dissolving

Name _____ Date _____

I can tell which things dissolve in water.

1 How it works

When you mix two things, you make a mixture. In some mixtures you can still see each part, like sand in water or trail mix. Some solids dissolve in water: sugar and salt seem to disappear, but they are still there, and you can taste them. Other solids, like sand and rice, do not dissolve.



2 Will it dissolve in water?

Circle yes or no.



a rock

yes no



honey

yes no



rice

yes no



drink mix

yes no



salt

yes no



sand

yes no



a crayon

yes no



sugar

yes no

How did I do? ☆ ☆ ☆

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Mix and separate

Name _____ Date _____

I can choose a way to separate a mixture.

1 How would you separate it? Draw a line.

 **rice and water** ○	○ pick them apart by hand
 **paper clips and sand** ○	○ pour it through a strainer
 **salty water** ○	○ pull the clips out with a magnet
 **beads and buttons** ○	○ let the water evaporate

2 Fill in the blanks

Use the words in the box.

faster **top** **dissolves** **bottom**

1. Sugar _____ in water.
2. Sand sinks to the _____.
3. Oil floats on _____ of water.
4. Warm water dissolves sugar _____.

How did I do? ☆ ☆ ☆

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Think like a scientist

Name _____ Date _____

I can explain what happens when things are mixed.

1 Think about it

1. Where does sugar go when it dissolves? _____
2. How can you get salt back from salty water? _____
3. Why stir sugar into a drink? _____
4. Name a mixture you eat. _____

2 True or false? Circle it.

1. Dissolved salt is gone forever.	true	false
2. Warm water dissolves sugar faster than cold water.	true	false
3. Sugar dissolves in water.	true	false
4. A salad is a mixture.	true	false
5. Sand dissolves in water.	true	false

3 Draw a mixture. Label each part.

How did I do? ☆ ☆ ☆

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Try it: what dissolves?

Name _____ Date _____

I can test which solids dissolve in water.

1 You need

- 4 clear cups of water
- sugar and salt
- sand
- rice
- a spoon

2 What to do

1. Add 1 spoon of a different solid to each cup: sugar, salt, sand and rice.
2. Stir each cup 10 times.
3. Wait 1 minute and look closely. Can you still see the solid?
4. Write dissolves or does not dissolve.

3 I predict

Which solids will dissolve?

_____

_____

4 What I see

Solid	What I see	Dissolves?
sugar		
salt		
sand		
rice		

How did I do? ☆ ☆ ☆

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FOR TEACHERS AND PARENTS

Answer key: mixing and dissolving

1 Page 1

Dissolves: 1) a rock: no; 2) honey: yes; 3) rice: no; 4) drink mix: yes; 5) salt: yes; 6) sand: no; 7) a crayon: no; 8) sugar: yes.

2 Page 2

Separate: 1) rice and water: pour it through a strainer; 2) paper clips and sand: pull the clips out with a magnet; 3) salty water: let the water evaporate; 4) beads and buttons: pick them apart by hand.

Blanks: 1) dissolves; 2) bottom; 3) top; 4) faster.

3 Page 3

Think: 1) It spreads through the water; you can taste it; 2) Let the water evaporate; 3) Stirring helps it dissolve faster; 4) Salad, soup, trail mix or fruit salad.

True or false: 1) false; 2) true; 3) true; 4) true; 5) false.

Drawing: answers will vary, for example a fruit salad with each fruit labeled.

4 Page 4: Try it!

The sugar and the salt dissolve: they seem to disappear, but the water tastes sweet or salty, so they are still there. The sand and the rice do not dissolve; they sink to the bottom. If salty water sits in the sun for a few days, the water evaporates and the salt is left behind.

5 Teaching tip

Run the dissolving test twice, once with cold water and once with warm water. Children can time how long the sugar takes in each and see that warm water works faster.

Safety: do not taste anything without a grown-up. Wipe up spills.

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