

# Will It Dissolve?

## What Is Dissolving?

Use the words below to fill in the gaps to explain what dissolving is.

solution

substances

insoluble substances

soluble substances

Some \_\_\_\_\_ dissolve when mixed with water. The substance mixes with the water to make a \_\_\_\_\_. Things that will dissolve in water are called \_\_\_\_\_. Things that will not dissolve in water are called \_\_\_\_\_.

## Investigation

I will investigate which of these substance dissolve in water: sand, sugar, salt and flour.

## Prediction

I think these substances will dissolve in water: \_\_\_\_\_

I think these substances will not dissolve in water: \_\_\_\_\_

## Equipment:

- 4 beakers
- water
- teaspoon
- stirrer
- sand, sugar, salt and flour

## Method

1. Pour equal amounts of water into each beaker.
2. Add two teaspoons of sand into the first beaker, two teaspoons of sugar into the second beaker, two teaspoons of salt into the third beaker and two teaspoons of flour into the fourth beaker. Fill in the results table for each substance.
3. Stir each mixture for the same amount of time.

# What Are the Best Conditions for Dissolving?

## Variables

These are the things I will keep the same in my investigation:

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These are the things I will change in my investigation:

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## Results

Fill in the table.

Substances that dissolved	Substances that did not dissolve

## Conclusion

Tick the correct answer:

Sand is:	
soluble	<input type="radio"/>
insoluble	<input type="radio"/>

Salt is:	
soluble	<input type="radio"/>
insoluble	<input type="radio"/>

Sugar is:	
soluble	<input type="radio"/>
insoluble	<input type="radio"/>

Flour is:	
soluble	<input type="radio"/>
insoluble	<input type="radio"/>

Would there be a way to separate the salt from the water?

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# Will It Dissolve? Answers

## What Is Dissolving?

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Some substances dissolve when mixed with water. The substance mixes with the water to make a solution. Things that will dissolve in water are called soluble substances. Things that will not dissolve in water are called insoluble substances.

## Investigation

I will investigate which of these substance dissolve in water: sand, sugar, salt and flour.

## Prediction

I think these substances will dissolve in water:

**Children's own answers, they may mention salt and sugar.**

I think these substances will not dissolve in water:

**Children's own answers, they may mention sand and flour.**

## Equipment:

- 4 beakers
- water
- teaspoon
- stirrer
- sand, sugar, salt and flour

## Method

1. Pour equal amounts of water into each beaker.
2. Add two teaspoons of sand into the first beaker, two teaspoons of sugar into the second beaker, two teaspoons of salt into the third beaker and two teaspoons of flour into the fourth beaker. Fill in the results table for each substance.
3. Stir each mixture for the same amount of time.

## What Are the Best Conditions for Dissolving? Answers

### Variables

These are the things I will keep the same in my investigation:

**amount of water, temperature of water, amount of each substance, time taken to stir the mixture.**

These are the things I will change in my investigation

**the type of substance.**

### Results

Fill in the table.

Substances that dissolved	Substances that did not dissolve
sugar salt	flour sand

### Conclusion

Tick the correct answer:

Sand is:
soluble <input type="radio"/>
<b>insoluble</b> <input type="radio"/>

Salt is:
<b>soluble</b> <input type="radio"/>
insoluble <input type="radio"/>

Sugar is:
<b>soluble</b> <input type="radio"/>
insoluble <input type="radio"/>

Flour is:
soluble <input type="radio"/>
<b>insoluble</b> <input type="radio"/>

Would there be a way to separate the salt from the water?

**Answers could mention the idea of boiling the water which would leave only the salt behind.**

# Will It Dissolve?

Fill in the gaps to explain what dissolving is.

Some \_\_\_\_\_ dissolve when mixed with water. The substance mixes with the water to make a \_\_\_\_\_. Things that will dissolve in water are called \_\_\_\_\_. Things that will not dissolve in water are called \_\_\_\_\_.

## Investigation

I will investigate which of these substance dissolve in water: sand, sugar, salt and flour.

## Prediction

I think these substances will dissolve in water: \_\_\_\_\_

I think these substances will not dissolve in water: \_\_\_\_\_

I think this because \_\_\_\_\_

\_\_\_\_\_

## Equipment:

- 4 beakers
- water
- teaspoon
- stirrer
- sand, sugar, salt and flour

## Method

1. Pour equal amounts of water into each beaker.
2. Add two teaspoons of sand into the first beaker, two teaspoons of sugar into the second beaker, two teaspoons of salt into the third beaker and two teaspoons of flour into the fourth beaker.
3. Stir each mixture for the same amount of time.

# What Are the Best Conditions for Dissolving?

## Variables

These are the things I will keep the same in my investigation:

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These are the things I will change in my investigation

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The thing I am measuring is

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## Results

Fill in the table.

Substances that dissolved	Substances that did not dissolve

## Conclusion

Tick the correct answer:

Sand is:	
soluble	<input type="radio"/>
insoluble	<input type="radio"/>

Salt is:	
soluble	<input type="radio"/>
insoluble	<input type="radio"/>

Sugar is:	
soluble	<input type="radio"/>
insoluble	<input type="radio"/>

Flour is:	
soluble	<input type="radio"/>
insoluble	<input type="radio"/>

Would there be a way to separate the salt from the water?

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# Will It Dissolve? Answers

Fill in the gaps to explain what dissolving is.

Some substances dissolve when mixed with water. The substance mixes with the water to make a solution. Things that will dissolve in water are called soluble substances. Things that will not dissolve in water are called insoluble substances.

## Investigation

I will investigate which of these substance dissolve in water: sand, sugar, salt and flour.

## Prediction

I think these substances will dissolve in water:

**Children's own answers, they may mention salt and sugar.**

I think these substances will not dissolve in water:

**Children's own answers, they may mention sand and flour.**

I think this because

**children may mention things such as sugar dissolving in tea or sand on the beach staying as sand even when it is covered by sea water.**

## Equipment:

- 4 beakers
- water
- teaspoon
- stirrer
- sand, sugar, salt and flour

## Method

1. Pour equal amounts of water into each beaker.
2. Add two teaspoons of sand into the first beaker, two teaspoons of sugar into the second beaker, two teaspoons of salt into the third beaker and two teaspoons of flour into the fourth beaker.
3. Stir each mixture for the same amount of time.

## What Are the Best Conditions for Dissolving? Answers

### Variables

These are the things I will keep the same in my investigation:

**amount of water, amount of each substance, number of stirs, temperature of the water.**

These are the things I will change in my investigation

**the substance**

The thing I am measuring is

**how well each substance dissolves in water.**

### Results

Fill in the table.

Substances that dissolved	Substances that did not dissolve
sugar salt	flour sand

### Conclusion

Tick the correct answer:

Sand is:
soluble <input type="radio"/>
<b>insoluble</b> <input type="radio"/>

Salt is:
<b>soluble</b> <input type="radio"/>
insoluble <input type="radio"/>

Sugar is:
<b>soluble</b> <input type="radio"/>
insoluble <input type="radio"/>

Flour is:
soluble <input type="radio"/>
<b>insoluble</b> <input type="radio"/>

Would there be a way to separate the salt from the water?

**Answers could mention the idea of boiling the water which would leave only the salt behind.**



# Will It Dissolve?

Explain what dissolving is. Use the words below in your explanation.

solution

substances

insoluble substances

soluble substances

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## Investigation

I will investigate which of these substance dissolve in water: sand, sugar, salt and flour.

## Prediction

Explain what you think will happen when each of the sand, sugar, salt and flour are added to water and stirred. Explain why you think this will happen.

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## Equipment:

- 4 beakers
- water
- teaspoon
- stirrer
- sand, sugar, salt and flour

## Method

Write a step-by-step explanation about what you will do.

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## What Are the Best Conditions for Dissolving?

### Variables

Explain what you will be measuring and which things you will change and which you will keep the same.

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### Results

Write your results in this table.


### Conclusion

Explain what you have learnt from your results. Use the words soluble, insoluble and solution.

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### Challenge

What do you think would happen if you changed the temperature of the water?

# Will It Dissolve? Answers

Explain what dissolving is. Use the words below in your explanation.

solution

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insoluble substances

soluble substances

**Some substances dissolve when mixed with water. The substance mixes with the water to make a solution. Things that will dissolve in water are called soluble substances. Things that will not dissolve in water are called insoluble substances.**

## Investigation

I will investigate which of these substance dissolve in water: sand, sugar, salt and flour.

## Prediction

Explain what you think will happen when each of the sand, sugar, salt and flour are added to water and stirred. Explain why you think this will happen.

**Children's own answers, they may mention salt and sugar are soluble and that sand and flour are insoluble. They may give reasons such as sugar dissolving in tea, or sand on the beach staying as sand even when it is covered by sea water.**

## Equipment:

- 4 beakers
- water
- teaspoon
- stirrer
- sand, sugar, salt and flour

## Method

Write a step-by-step explanation about what you will do.

1. Pour equal amounts of water into each beaker.
2. Add two teaspoons of sand into the first beaker, two teaspoons of sugar into the second beaker, two teaspoons of salt into the third beaker and two teaspoons of flour into the fourth beaker.
3. Stir each mixture for the same amount of time.

## What Are the Best Conditions for Dissolving?

### Variables

Explain what you will be measuring and which things you will change and which you will keep the same.

**I will measure whether a substance dissolves in water. I will keep these things the same in my investigation: amount of water, amount of each substance, time taken to stir the mixture. I will change the substance.**

### Results

Write your results in this table.

Substances that dissolved	Substances that did not dissolve
sugar salt	flour sand

### Conclusion

Explain what you have learnt from your results. Use the words soluble, insoluble and solution.

**Salt is a soluble substance and made a solution. Sugar is a soluble substance and made a solution. Sand is an insoluble substance. Flour is an insoluble substance.**

**Explanations could include that sugar and salt are finer (have smaller particles) so they can dissolve in water.**

### Challenge

What do you think would happen if you changed the temperature of the water?

**Children could mention that hot water might make things dissolve quicker, like if you put sugar in hot tea or a jelly cube in hot water.**