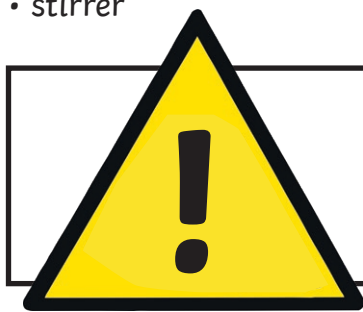
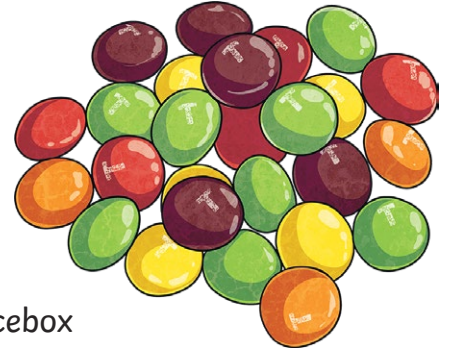


# What Are the Best Conditions for Dissolving?

You are going to do an investigation to discover if temperature affects how quickly something dissolves.

## Equipment:

- five beakers
- five rainbow sweets
- water of different temperatures (have some water in a fridge or icebox before the experiment and use a kettle to make hot water)
- stirrer



Your teacher will provide you with the water you need from the kettle. Be extremely careful when using this water as boiling water can cause burns. Listen carefully to the instructions from your teacher.

## Prediction

Tick the correct answer.

I think the hotter the water,  
the more the sweet will dissolve.   
the less the sweet will dissolve.

I think the colder the water,  
the more the sweet will dissolve.   
the less the sweet will dissolve.

## Method

1. Pour the cold water in the first beaker. The next beaker should have normal room-temperature water in it. The third beaker should be one half boiling water and one half room-temperature water. The fourth beaker should be three quarters boiling water and one quarter room-temperature water. The fifth beaker should be all boiling water.
2. Put a sweet in each beaker. Be careful when putting the sweets in the hot water.
3. Stir each beaker 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;

---

These are the things I will change in my investigation;

---

### Results

Fill in the table.

| Beaker | Did the sweet dissolve well? |
|--------|------------------------------|
| 1      |                              |
| 2      |                              |
| 3      |                              |
| 4      |                              |
| 5      |                              |

### Conclusion

The hotter the temperature of the water,

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The colder the temperature of the water,

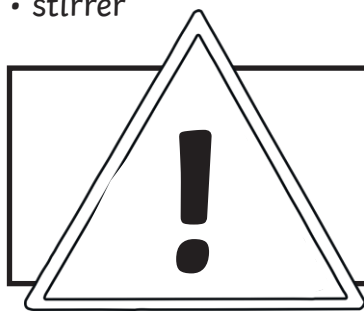
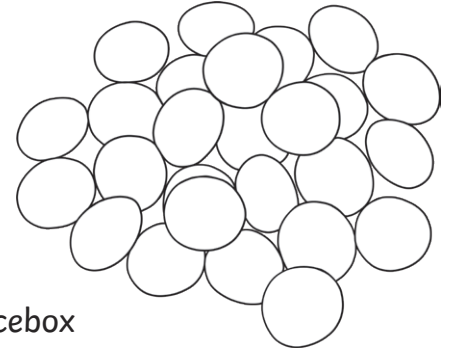
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# What Are the Best Conditions for Dissolving? Answers

You are going to do an investigation to discover if temperature affects how quickly something dissolves.

## Equipment:

- five beakers
- five rainbow sweets
- water of different temperatures (have some water in a fridge or icebox before the experiment and use a kettle to make hot water)
- stirrer



Your teacher will provide you with the water you need from the kettle. Be extremely careful when using this water as boiling water can cause burns. Listen carefully to the instructions from your teacher.

## Prediction

Tick the correct answer.

I think the hotter the water,  
**the more the sweet will dissolve.**   
the less the sweet will dissolve.

I think the colder the water,  
the more the sweet will dissolve.   
**the less the sweet will dissolve.**

## Method

1. Pour the cold water in the first beaker. The next beaker should have normal room-temperature water in it. The third beaker should be one half boiling water and one half room-temperature water. The fourth beaker should be three quarters boiling water and one quarter room-temperature water. The fifth beaker should be all boiling water.
2. Put a sweet in each beaker. Be careful when putting the sweets in the hot water.
3. Stir each beaker 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;  
**the type of sweet, the amount of water, the length of time I stir the mixture.**

These are the things I will change in my investigation;  
**the temperature of the water.**

### Results

Fill in the table.

| Beaker | Did the sweet dissolve well? |
|--------|------------------------------|
| 1      | No                           |
| 2      | No                           |
| 3      | A bit                        |
| 4      | Yes                          |
| 5      | Yes, very quickly            |

### Conclusion

The hotter the temperature of the water,  
**the easier the sweet dissolved.**

The colder the temperature of the water,  
**the less the sweet dissolved.**

# What Are the Best Conditions for Dissolving?

You are going to do an investigation to discover if temperature affects how quickly something dissolves.

## Equipment:

- five beakers
- five rainbow sweets
- water of different temperatures (have some water in a fridge or icebox before the experiment and use a kettle to make hot water)
- stirrer



Your teacher will provide you with the water you need from the kettle. Be extremely careful when using this water as boiling water can cause burns. Listen carefully to the instructions from your teacher.

## Prediction

I think the hotter the water,

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I think this because

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## Method

1. Pour the cold water in the first beaker. The next beaker should have normal room-temperature water in it. The third beaker should be one half boiling water and one half room-temperature water in it. The fourth beaker should be three quarters boiling water and one quarter room-temperature water. The fifth beaker should be all boiling water.
2. Put a sweet in each beaker. Be careful when putting the sweets in the hot water.
3. Stir each beaker for the same amount of time.
4. Use the stopwatch to time how long it takes for the sweet to dissolve in each beaker.

## What Are the Best Conditions for Dissolving?

### Variables

In my experiment, I will be measuring

---

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

---

These are the things I will change in my investigation:

---

### Results

Fill in the table.

| Beaker | Time taken for the sweet to dissolve |
|--------|--------------------------------------|
| 1      |                                      |
| 2      |                                      |
| 3      |                                      |
| 4      |                                      |
| 5      |                                      |

### Conclusion

Explain how the temperature of the water is linked to how quickly something dissolves.

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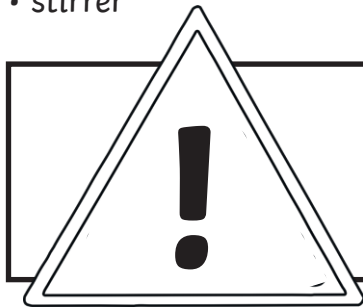
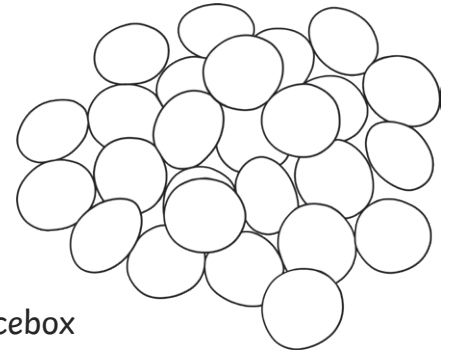
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# What Are the Best Conditions for Dissolving? Answers

You are going to do an investigation to discover if temperature affects how quickly something dissolves.

## Equipment:

- five beakers
- five rainbow sweets
- water of different temperatures (have some water in a fridge or icebox before the experiment and use a kettle to make hot water)
- stirrer



Your teacher will provide you with the water you need from the kettle. Be extremely careful when using this water as boiling water can cause burns. Listen carefully to the instructions from your teacher.

## Prediction

I think the hotter the water,

**the quicker the sweet will dissolve.**

I think this because

**answers will be children's own but they could mention that the sweets are made of sugar and sugar dissolves quicker in hot liquids, such as tea.**

## Method

1. Pour the cold water in the first beaker. The next beaker should have normal room-temperature water in it. The third beaker should be one half boiling water and one half room-temperature water in it. The fourth beaker should be three quarters boiling water and one quarter room-temperature water. The fifth beaker should be all boiling water.
2. Put a sweet in each beaker. Be careful when putting the sweets in the hot water.
3. Stir each beaker for the same amount of time.
4. Use the stopwatch to time how long it takes for the sweet to dissolve in each beaker.

## What Are the Best Conditions for Dissolving? Answers

### Variables

In my experiment, I will be measuring **how quickly a sweet dissolves in different temperatures.**

These are the things I will keep the same in my investigation: **the type of sweet, the amount of water, the length of time I stir the mixture.**

These are the things I will change in my investigation: **the temperature of the water.**

### Results

Fill in the table.

| Beaker | Time taken for the sweet to dissolve   |
|--------|--|
| 1      | <b>These results will be the children's own, but should show that the hotter the temperature, the quicker the sweet dissolves.</b> |
| 2      |  |
| 3      |  |
| 4      |  |
| 5      |  |

### Conclusion

Explain how the temperature of the water is linked to how quickly something dissolves.

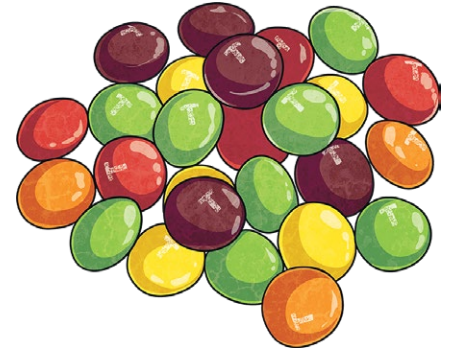
**The hotter the temperature of the water, the easier the sweet dissolved. The colder the temperature of the water, the less the sweet dissolved.**

**Children may mention the differences in times.**



# What Are the Best Conditions for Dissolving?

You are going to do an investigation to discover if temperature affects how quickly something dissolves.



## Equipment:

- five beakers
- five rainbow sweets
- water of different temperatures (have some water in a fridge or icebox before the experiment and use a kettle to make hot water)
- stirrer
- stopwatch
- thermometer

Your teacher will provide you with the water you need from the kettle. Be extremely careful when using this water as boiling water can cause burns. Listen carefully to the instructions from your teacher.



## Prediction

Explain what you think will happen and give reasons for your prediction.

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## What Are the Best Conditions for Dissolving?

### Method

1. Pour the cold water in the first beaker. The next beaker should have normal room-temperature water in it. The third beaker should be one half boiling water and one half room-temperature water in it. The fourth beaker should be three quarters boiling water and one quarter room-temperature water. The fifth beaker should be all boiling water.
2. Measure and record the temperature of each beaker of water.
3. Put a sweet in each beaker. Be careful when putting the sweets in the hot water.
4. Stir each beaker for the same amount of time.
5. Use the stopwatch to time how long it takes for the sweet to dissolve in each beaker.

### Variables

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

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### Results

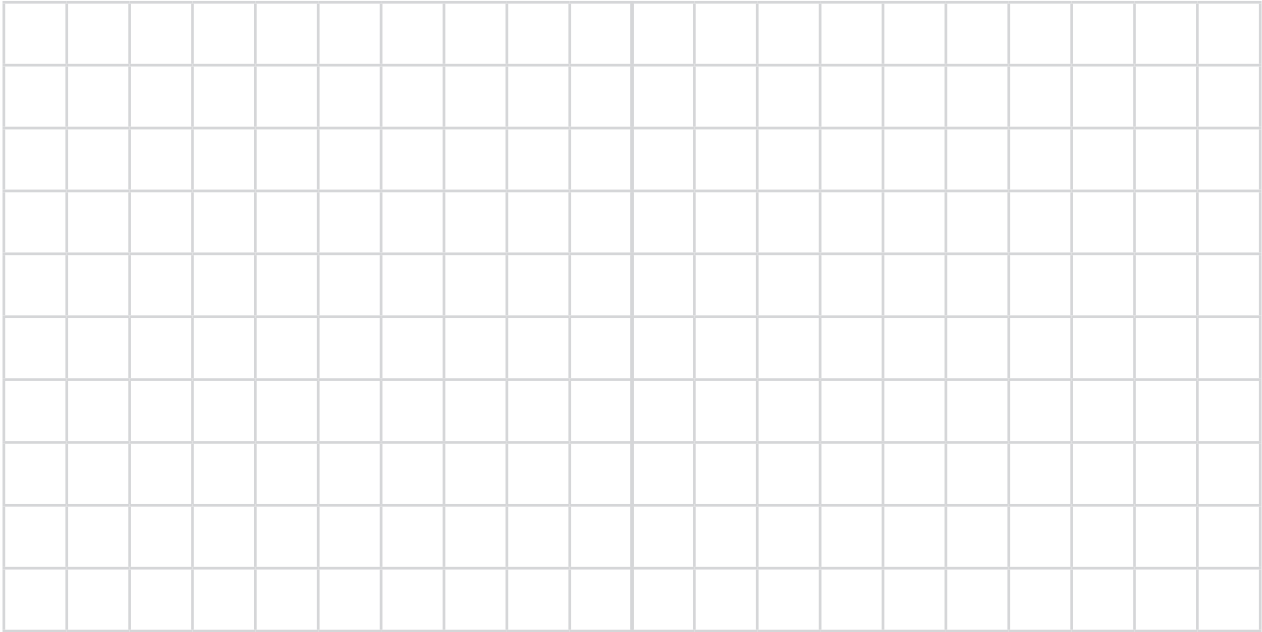
Fill in the table.

| Beaker | Temperature of the water | Time taken for the sweet to dissolve |
|--------|--------------------------|--------------------------------------|
| 1      |                          |                                      |
| 2      |                          |                                      |
| 3      |                          |                                      |
| 4      |                          |                                      |
| 5      |                          |                                      |

## What Are the Best Conditions for Dissolving?

### Graph

Put your results into a graph.



### Conclusion

Explain how the temperature of the water is linked to how quickly something dissolves.

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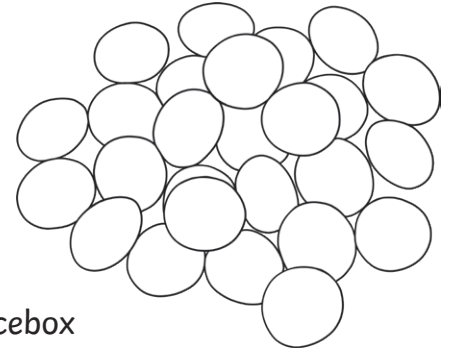
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# What Are the Best Conditions for Dissolving? Answers

You are going to do an investigation to discover if temperature affects how quickly something dissolves.

## Equipment:

- five beakers
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- water of different temperatures (have some water in a fridge or icebox before the experiment and use a kettle to make hot water)
- stirrer
- stopwatch
- thermometer



Your teacher will provide you with the water you need from the kettle. Be extremely careful when using this water as boiling water can cause burns. Listen carefully to the instructions from your teacher.



## Prediction

Explain what you think will happen and give reasons for your prediction.

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## What Are the Best Conditions for Dissolving? Answers

### Method

1. Pour the cold water in the first beaker. The next beaker should have normal room-temperature water in it. The third beaker should be one half boiling water and one half room-temperature water in it. The fourth beaker should be three quarters boiling water and one quarter room-temperature water. The fifth beaker should be all boiling water.
2. Measure and record the temperature of each beaker of water.
3. Put a sweet in each beaker. Be careful when putting the sweets in the hot water.
4. Stir each beaker for the same amount of time.
5. Use the stopwatch to time how long it takes for the sweet to dissolve in each beaker.

### Variables

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

**In my experiment, I will be measuring how quickly a sweet dissolves in different temperatures. I will keep the type of sweet, the amount of water, the length of time I stir the mixture the same. I will change the temperature of the water.**

### Results

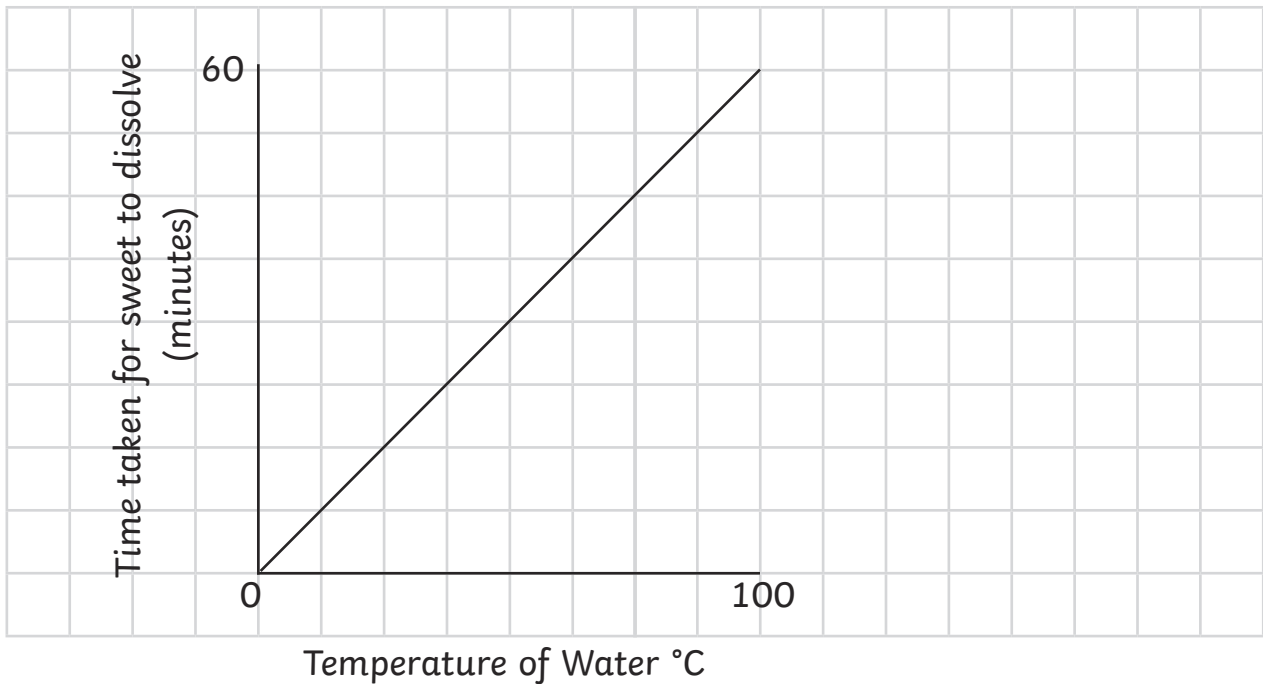
Fill in the table.

| Beaker | Temperature of the water  | Time taken for the sweet to dissolve   |
|--------|---|--|
| 1      | These results will be the children's own but should show the temperature increasing in beakers two, three, four and five. | These results will be the children's own but should show that the hotter the temperature, the quicker the sweet dissolves. |
| 2      |   |  |
| 3      |   |  |
| 4      |   |  |
| 5      |   |  |

## What Are the Best Conditions for Dissolving? Answers

### Graph

Put your results into a graph.



### Conclusion

Explain how the temperature of the water is linked to how quickly something dissolves.

**The hotter the temperature of the water, the easier the sweet dissolved. The colder the temperature of the water, the less the sweet dissolved. Children may mention the differences in times.**