

All About Rainbows

A rainbow is a colourful arc that we see in the sky.

A rainbow is made of light.

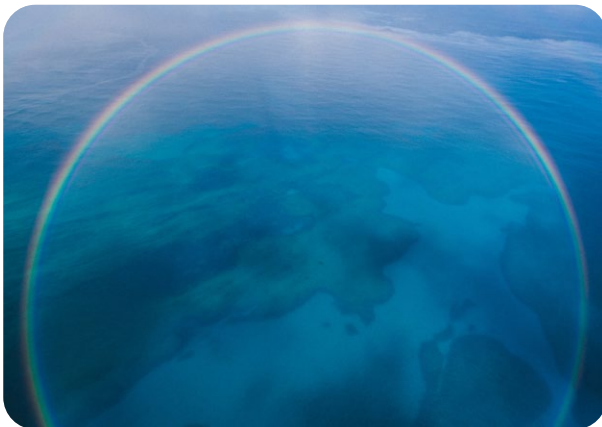
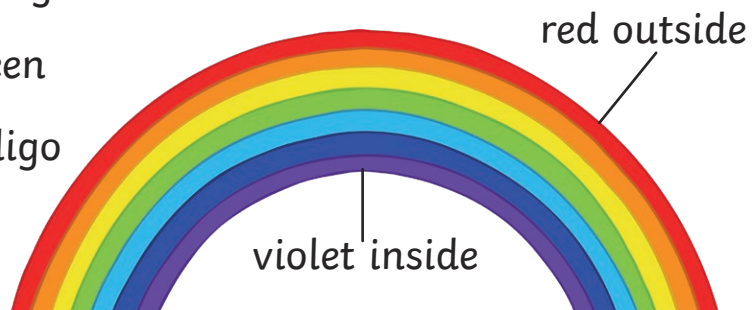


A rainbow happens when it is sunny and rainy at the same time.



There are seven colours in a rainbow:

- | | |
|--|--|
|  red |  orange |
|  yellow |  green |
|  blue |  indigo |
|  violet | |



Did You Know...?

Rainbows are full circles.

On the ground, we only see half of a rainbow.

We can only see a full rainbow from above.

Questions

1. When do we see rainbows? **Tick one.**

- ☐ when it's rainy and sunny
- ☐ when it's dark
- ☐ when it's windy

2. What is a rainbow made of? **Tick one.**

- ☐ sound
- ☐ light
- ☐ glass

3. How many colours are there in a rainbow? **Tick one.**

- ☐ seven
- ☐ six
- ☐ ten

4. Which of these colours is **not** in a rainbow? **Tick one.**

- ☐ red
- ☐ brown
- ☐ blue

5. How can you see a full circle rainbow? **Tick one.**

- ☐ from indoors
- ☐ from below
- ☐ from above

Answers

1. When do we see rainbows? **Tick one.**

- ☒ **when it's rainy and sunny**
- ☐ when it's dark
- ☐ when it's windy

2. What is a rainbow made of? **Tick one.**

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- ☐ six
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4. Which of these colours is **not** in a rainbow? **Tick one.**

- ☐ red
- ☒ **brown**
- ☐ blue

5. How can you see a full circle rainbow? **Tick one.**

- ☐ from indoors
- ☐ from below
- ☒ **from above**

All About Rainbows

A rainbow is a colourful arc that we see in the sky. It is made of light. You cannot touch a rainbow.



A rainbow happens when there is water in the air and light shines through it. We often see a rainbow when it is sunny and rainy at the same time.

Rainbows are made up of lots of colours. Most humans see these seven bands of colours in a rainbow:



red



orange



yellow



green



blue

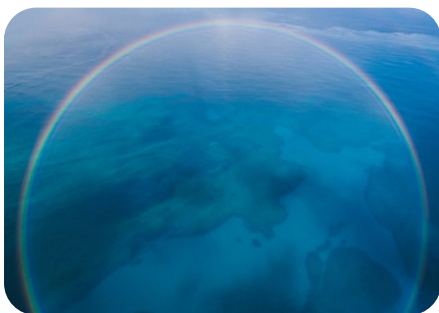
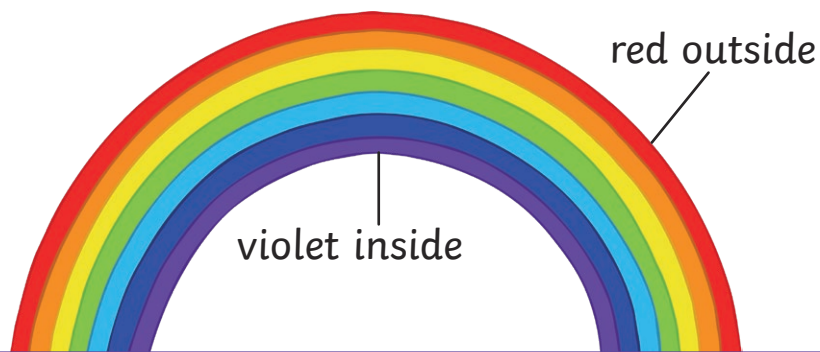


indigo



violet

Red is usually on the outside and violet is on the inside.



Did You Know...?

Rainbows are actually full circles. We usually only see half of a rainbow because the ground gets in the way. We can only see a full rainbow from above.

Questions

1. Which of these sentences is true? **Tick one.**

- ☐ You can touch a rainbow.
- ☐ You can hear a rainbow.
- ☐ You can see a rainbow.

2. Which two things are needed to make a rainbow? **Tick one.**

- ☐ water and light
- ☐ water and heat
- ☐ light and heat

3. How many bands of colour are there in a rainbow?

4. Which colour is usually on the outside of a rainbow? **Tick one.**

- ☐ green
- ☐ red
- ☐ violet

5. Fill in the missing word.

We usually only see half of a rainbow because the _____
gets in the way.

rain

sun

ground

Answers

1. Which of these sentences is true? **Tick one.**

- ☐ You can touch a rainbow.
- ☐ You can hear a rainbow.
- ☒ **You can see a rainbow.**

2. Which two things are needed to make a rainbow? **Tick one.**

- ☒ **water and light**
- ☐ water and heat
- ☐ light and heat

3. How many bands of colour are there in a rainbow?

seven

4. Which colour is usually on the outside of a rainbow? **Tick one.**

- ☐ green
- ☒ **red**
- ☐ violet

5. Fill in the missing word.

We usually only see half of a rainbow because the **ground** gets in the way.

rain

sun

ground

All About Rainbows

A rainbow is a colourful arc that we see in the sky. It is caused by light reflecting off water droplets. The reflection causes a spectrum of light to appear opposite the sun. Rainbows are not physical objects so we cannot touch one.

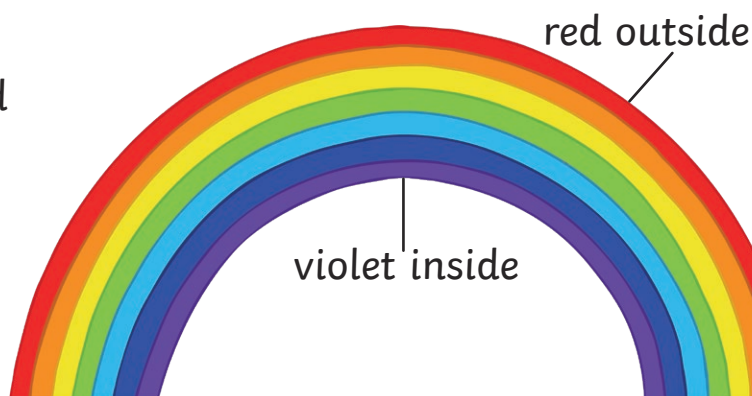


For a rainbow to occur, there needs to be water in the air and light needs to be shining. We often see a rainbow when it is sunny and rainy at the same time.

The spectrum of light is the range of colours that we see in the rainbow. A scientist called Isaac Newton split the spectrum into these seven bands of colours:



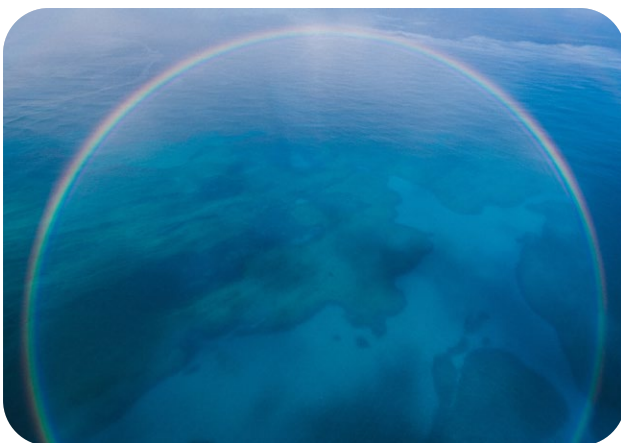
In a primary rainbow, red is on the outside and violet is on the inside.





Sometimes, a double rainbow can be seen. The second rainbow is a reflection of the first rainbow so it has violet on the outside and red on the inside. The second rainbow is fainter than the first one.

Rainbows can also form near other sources of water, such as waterfalls, even if it is not raining. The light reflects off the water droplets that are spraying into the air.



Did You Know...?

Rainbows are actually full circles. We usually only see half of a rainbow because the ground gets in the way. It is possible to see the full circle of a rainbow from above, in an aeroplane or helicopter.

Questions

1. Draw three lines to match each word with its definition.

rainbow	a range of colours
spectrum	a colourful shape that appears in the sky
arc	a curved line

2. Why can't we touch a rainbow?

3. What **two things** are needed for a rainbow to occur?

4. When does violet appear on the outside of a rainbow?

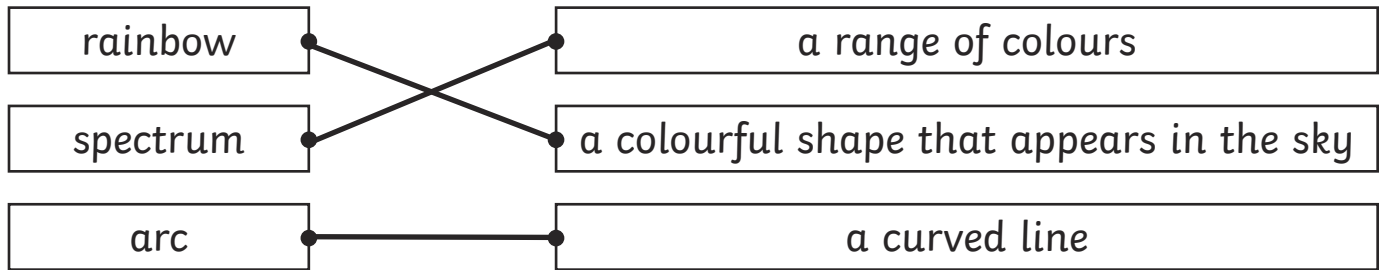
- ☐ if the rainbow is created near a waterfall
- ☐ if it's the second rainbow in a double rainbow
- ☐ if the rainbow is seen from above

5. Which scientist first split the spectrum of light in a rainbow into seven bands of colour?

6. Do you think it is possible to see rainbows at night?
Explain your thinking.

Answers

1. Draw three lines to match each word with its definition.



2. Why can't we touch a rainbow?

Because it is made of light. / Because it is not a physical object.

3. What **two things** are needed for a rainbow to occur?

water and light

4. When does violet appear on the outside of a rainbow?

- ☐ if the rainbow is created near a waterfall
- ☒ **if it's the second rainbow in a double rainbow**
- ☐ if the rainbow is seen from above

5. Which scientist first split the spectrum of light in a rainbow into seven bands of colour?

Isaac Newton

6. Do you think it is possible to see rainbows at night?

Explain your thinking.

Children's own responses, such as: I do not think it is possible to see rainbows at night because it's dark at night and you need light to make a rainbow. / I think it is possible to see rainbows at night because it can rain at night and the moon provides light.