



Science advent calendar

Complete with 10-minute science activities for each day of advent, plus ideas and resources for diving deeper.

Ages 7–11



A fun and engaging Christmas and winter-themed science quiz!



New
Daily science-themed cracker jokes!



Make sure you are viewing this PowerPoint in 'Slide Show Mode'

Click on this icon on the bottom right of your screen.



This will allow you to see the full resource and to use any interactivity.



Throughout the PowerPoint, click on the arrow icon to check answers or reveal further information.



Click on today's picture

1



2



3



4



5



6



7



8



9



10



11



12



13



14



15



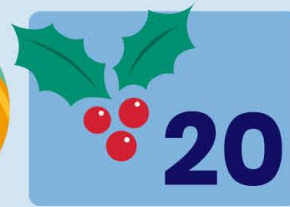
10



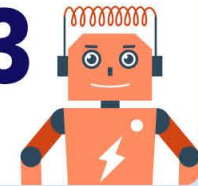
19



20



23



24



16



17



18



21



22





Is a Christmas tree an evergreen or a deciduous tree?



Hint

Answer



Deciduous trees don't have leaves all year round. They lose their leaves in Autumn. Evergreen trees have leaves all year round.

[◀ Back to calendar](#)



In the Christmas story, the Kings followed a star to find Jesus in the stable. What is a star?

 **Hint**

Answer 



A star is something that gives out light. Our Sun is a star.

[◀ Back to calendar](#)



Is a reindeer a carnivore, herbivore, or omnivore?



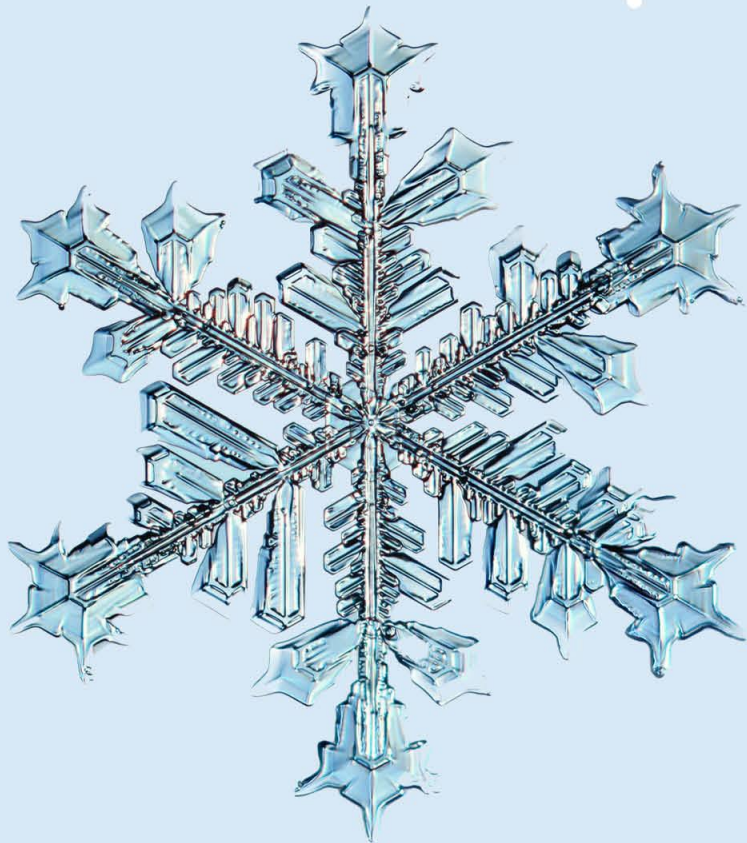
Hint

Answer 



A herbivore eats plants, a carnivore eats other animals and an omnivore eats plants and other animals.

[◀ Back to calendar](#)



Why does a snowflake fall much more slowly than a raindrop?



Hint

Answer



Think about the shape of the raindrop compared to the snowflake.

5th
December



What part of the plant is a Brussels sprout?



Hint

Answer 



Here are some plant parts to choose from: leaf, root, stem, bud, flower.

[◀ Back to calendar](#)



Currants, raisins and sultanas are dried fruits often found in Christmas cakes and puddings. What fruit were they before they were dried?



Hint

Answer



This fruit comes in many colours, including red, green, purple and black.



What is snow made from and how is it made?



Hint

Answer 



Snow is made from a liquid that you need to drink to stay alive!

[◀ Back to calendar](#)



8th

December



Some materials, like wool and fleece, keep us warm in winter. Are they good heat conductors or insulators?



Hint

Answer



A conductor allows heat to pass through it easily. An insulator does not.

[◀ Back to calendar](#)

9th

December

16
days to go



In the Christmas story, what special gifts did the Kings bring to Jesus?



Hint

Answer



One of the gifts was gold.
What were the other two gifts?

◀ Back to calendar



These animals are often found on cards at Christmas time. What vertebrate animal groups do they belong to?

 **Hint**

Answer 

[◀ Back to calendar](#)

× Vertebrates are animals with backbones. Birds, amphibians, reptiles, fish and mammals are vertebrates.



Some people say that Santa's sleigh travels at the speed of light. How fast is that?



Hint

Answer



Light travels much faster than the speed of sound. Sound travels at 343 metres per second.

◀ Back to calendar



What is this Christmas plant called and where does it grow?



Hint

Answer



People hang this plant up in their houses and kiss under it at Christmas time!

[◀ Back to calendar](#)



1

2

3

4

Click on each number above to hear a sound. What sounds can you hear?

 **Hint**

Answer 

× Listen carefully and have a guess. They are all sounds you might hear at Christmas time.

◀ Back to calendar



Why are baubles, glitter and tinsel so shiny?



Hint

Answer 



Think about the materials they are made from and what happens when light hits these materials.

[◀ Back to calendar](#)

15th

December

10
days to go



Some people say that Santa lives at the North Pole. Where is the North Pole and what is it like there?



Hint

Answer



You need to work out where North is. If you start at the top and go clockwise, the points of the compass are: **North, East, South, West**. This mnemonic will help you to remember: **Never Enter Santa's Workshop**.

[◀ Back to calendar](#)

16th
December



What makes Christmas crackers go BANG?



Hint

Answer



Think about what makes a gun go bang too!

[◀ Back to calendar](#)



In the Christmas story, the Three Kings rode on camels. What do camels store in their humps?



Hint

Answer 



Camels store something in their humps that helps them survive – but it's not water!

[◀ Back to calendar](#)



**We all create waste.
Do you think we create
more or less waste
at Christmas time,
compared with other
times of the year?**



Hint

Answer 



Think about waste from food, wrapping, unwanted gifts and Christmas trees.

◀ Back to calendar



**How many turkeys
do you think are eaten
every Christmas in
the UK?**



Hint

Answer



It is more than 5 million!

◀ Back to calendar

20th
December



Holly is often used to decorate our homes at Christmas. It is an evergreen plant with red berries. But what is a berry?



Hint

Answer



Is a berry a leaf, seed, fruit or bud?

◀ Back to calendar

21st

December

4
days to go



What are candles made from and what happens to this material when it is heated?



Hint

Answer 



The material turns from a solid into a liquid when it is heated.

[◀ Back to calendar](#)



22nd
December



**This fox lives in
the cold Arctic.
How is it suited
to where it lives?**



Hint

Answer



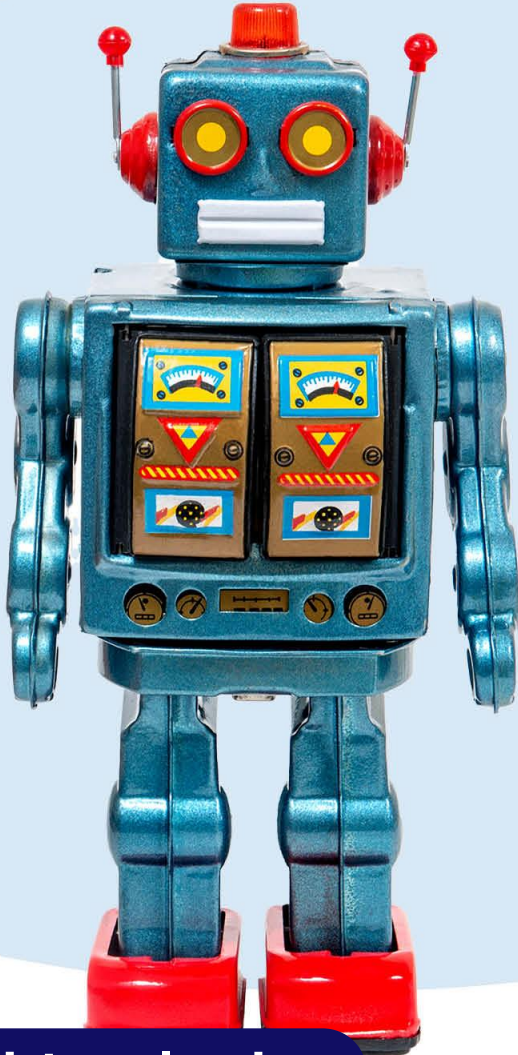
Look at its fur!

◀ Back to calendar

23rd

December

2
days to go



This robot toy needs energy to make it move and light up. Where does that energy come from?



Hint

Answer



What do you have to put inside a toy like this to make it work?

◀ Back to calendar

24th
December



What force pulls Santa down the chimney on Christmas Eve?



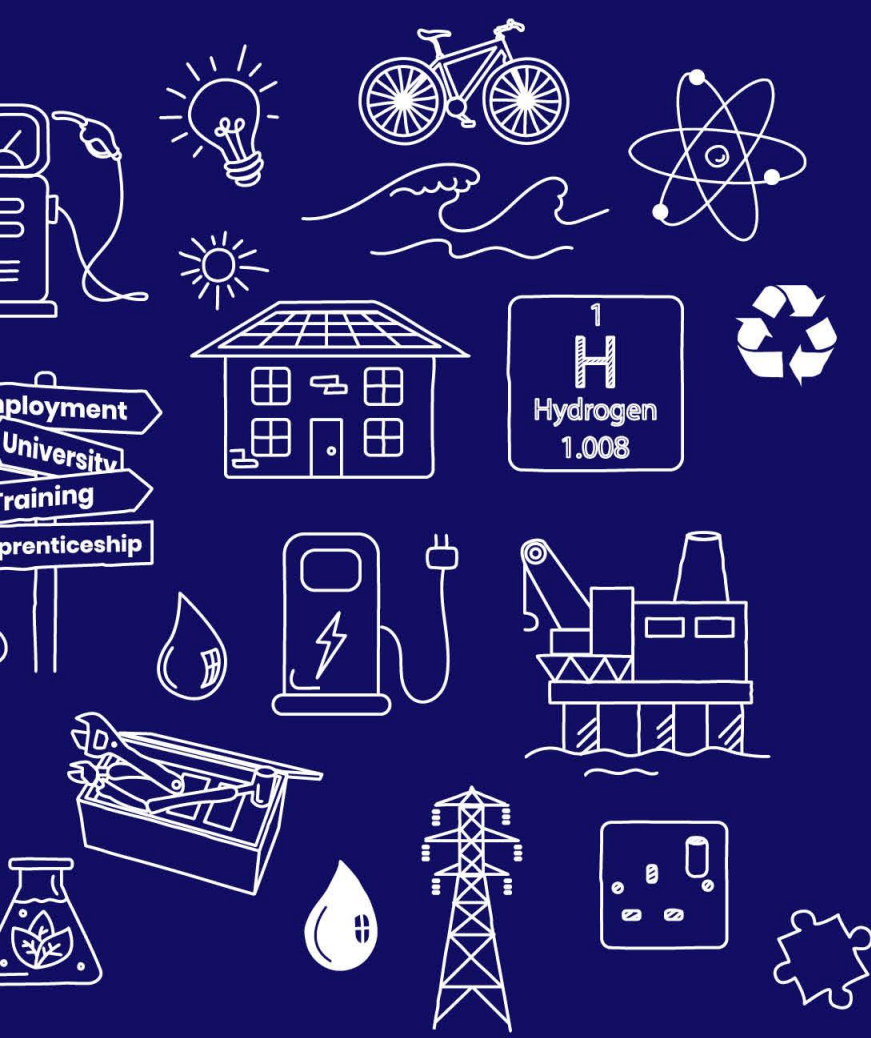
Hint

Answer



Is it air resistance, friction, water resistance or gravity?

[◀ Back to calendar](#)



ENERGISING FUTURES

