So school is closed due to weather warnings and high winds. I know this is disappointing end to the half term. However, there is plenty you can do today to enjoy your unexpected day with your family. Below are 25 ideas to keep you and your family entertained. I have plenty more ideas if you need…

1. Bake cookies (or brownies or cake)
2. Drink hot cocoa, bonus points for making it homemade
3. Build a fort
4. Have a movie marathon with popcorn and treats
5. Get out Lego and build to your heart's content
6. Work on a puzzle together as a family
7. Make up a story and have each person add to it
8. Write a letter to someone special (post it when the weather is calmer!)
9. Paint a picture
10. Have a picnic lunch in your living room
11. Make sock puppets or lunch sack puppets and put on a show
12. Fingerpaint
13. Play Simon says / charades or another interactive family game
14. Make a homemade volcano with baking soda and vinegar
15. Use items from the recycle bin to make "inventions" or "art"
16. Start a journal
17. Read a book
18. Learn something new - check out YouTube for tutorials on anything from how to draw an astronaut, how to knit or even how to fix a leaky tap like Ben from Gangsta Granny!
19. Play Sudoku or do a crossword puzzle
20. Use spaghetti and marshmallows to make a sculpture
21. Make instruments out of stuff you have around the house and create a marching band (tambourine out of paper plates, toilet paper tube and wax paper flute, coffee can drum)
22. Make soup. Who doesn't love soup on a cold day?
23. Make homemade bread to go with your soup
24. Play 20 questions

I've also attached some home learning activities that may like to complete.

Home Learning Activities

English

1. Write a book review. This could be about a book you have recently read or Gangsta Granny.
2. Write a short story or description of the picture titled The Eye of the Storm.
3. Complete the Earthquakes reading comprehension.

Maths

1. Revise fractions by completing some of the questions attached. There is some ordering, adding, subtracting and finding fractions of amounts. There's also a few challenges to complete.

Science

1. I've attached some ideas for an investigation based on the body.

Others

1. Create a weather map.
2. Research what causes storms.
3. Research Michael Fish and the storm of 1987
4. Create a picture based on a storm

Creative Writing – The Eye of the Storm

Write a short story or a description about this picture called The Eye of The Storm. Remember Vocabulary, Conjunctions, Openers and Punctuation!

Book Review

Book review by: _____

Title: _____

Author: _____

Non fiction ☐ Fiction ☐

What is the book about?

_____

_____

_____

_____

_____

Who would this book be suitable for? Age/interests

_____

_____

_____

_____

Would you/would you not recommend the book? Why?

_____

_____

_____

_____

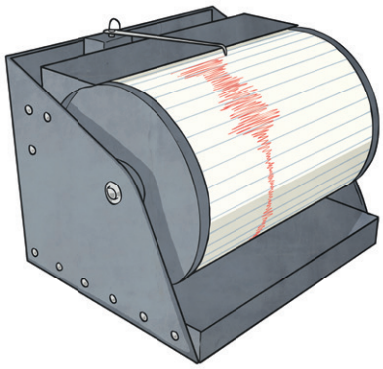
☆ ☆ ☆ ☆ ☆

Book Illustration

Earthquakes

The Earth's Crust

The Earth's crust and the top of the mantle have about twenty tectonic plates, which are like jigsaw pieces covering the Earth. These plates are always moving and bumping into each other. The edges of the plates are called 'plate boundaries', which are made up of faults. These faults are where most of the world's earthquakes occur. As the plates move, the edges get stuck because they are not smooth, but the rest of the plate keeps moving. When the force is too much, it slips and bumps and that causes an earthquake. A bit like when you pull something which gets caught, you pull it some more until it comes free with a big force.



Seismograph

A seismograph (say: size-mo-graf) is a special piece of equipment that records earthquakes. Seismometers are securely fastened to the Earth, so when the ground starts to shake, the instrument's case moves too. What doesn't move is a weight that hangs on a string inside the case. When there is an earthquake, the case shakes with the ground but the weight does not, and it draws a line to show how much the ground shook. Scientists use seismograms (graphs produced by the seismograph) to measure how big each earthquake is.

Interesting Fact

In 2009, in a place called L'Aquila in Italy, there was an earthquake that killed 309 people. In relation to the earthquake, a case went to court and it was decided that it was the fault of six Italian scientists who should have known it was coming and warned people. They were sent to prison for manslaughter (killing someone without planning or being hateful) but argued their case and won, so they did not have to go to prison after all.

You could try to find out:

1. How earthquakes are measured.
2. How easy they are to predict.
3. About other cases where prison sentences have been handed out in unusual circumstances.
4. How you go about arguing a decision made by a court.

Questions About Earthquakes

1. How many tectonic plates are there?

There are...

2. What are plate boundaries?

Plate boundaries are...

3. What does it mean when we say 'predicting earthquakes'?

Predicting earthquakes means...

4. Describe what causes earthquakes.

Earthquakes are caused by...

5. What is a seismograph?

A seismograph is...

Questions About Earthquakes

Answers

1. **How many tectonic plates are there?**

   There are twenty tectonic plates.

2. **What are plate boundaries?**

   Plate boundaries are the edges of the Earth's tectonic plates.

3. **What does it mean when we say 'predicting earthquakes'?**

   Any answer that suggests: Predicting earthquakes means using scientific measures to make a good guess when something might happen

4. **Describe what causes earthquakes.**

   Any answer that suggests: Earthquakes are caused by the plates moving, rubbing and bumping together.

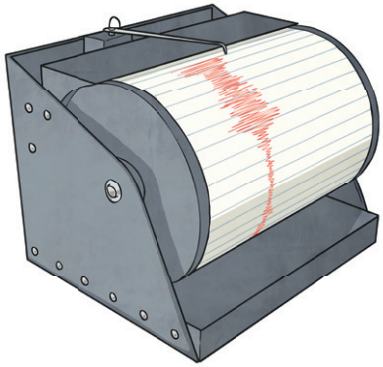
5. **What is a seismograph?**

   Any answer that suggests: A seismograph is a special piece of equipment that records earthquakes by drawing them.

Earthquakes

The Earth's Crust

The Earth's crust and the top of the mantle have about twenty tectonic plates, which are like jigsaw puzzle pieces covering the Earth. These plates are always moving and bumping into each other. We call the edges of the plates 'plate boundaries', which are made up of faults. These faults are where most of the world's earthquakes occur. As the plates move, the edges get stuck because they are not smooth, but the rest of the plate keeps moving. When the force is too much, it slips and bumps and that causes an earthquake.



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Interesting Fact

Six Italian scientists were convicted of manslaughter (killing someone without planning or being hateful) and sent to prison for not predicting (knowing it was coming and warning people) the 2009 L'Aquila earthquake in which 309 people died. They argued against their cases and won, so were eventually not sent to prison.

You could try to find out:

1. How earthquakes are measured.
2. How easy they are to predict.
3. About other cases where prison sentences have been handed out in unusual circumstances.
4. How you go about arguing a decision made by a court.

Questions About Earthquakes

1. Which layer of the Earth do the tectonic plates make up and how many are there?

They make up...

2. What are plate boundaries?

Plate boundaries are...

3. Where in the world do earthquakes take place?

Earthquakes take place...

4. Describe what causes earthquakes.

Earthquakes are caused by...

5. Which part of the seismograph moves? The case or the weight on a string?

The part of the seismograph that moves is...

Questions About Earthquakes

Answers

1. **Which layer of the Earth do the tectonic plates make up and how many are there?**

   They make up the Earth's crust and there are about twenty.

2. **What are plate boundaries?**

   Plate boundaries are the edges of the Earth's tectonic plates.

3. **Where in the world do earthquakes take place?**

   Any answer that suggests: Earthquakes take place within faults / areas where the plate boundaries meet.

4. **Describe what causes earthquakes.**

   Any answer that suggests: Earthquakes are caused by the plates rubbing against each other and getting stuck before coming free with a large force/jolt.

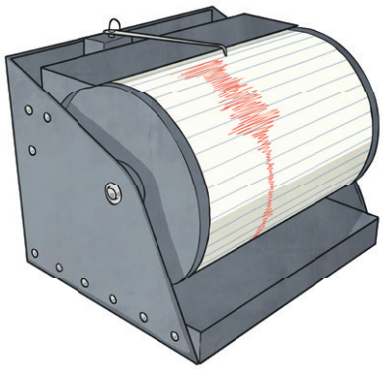
5. **Which part of the seismograph moves? The case or the weight on a string?**

   The part of the seismograph that moves is the case.

Earthquakes

The Earth's Crust

The Earth's crust and the top of the mantle have about twenty tectonic plates, which are like puzzle pieces covering the Earth. These plates are always moving and bumping into each other. We call the edges of the plates 'plate boundaries', which are made up of faults. These faults are where most of the world's earthquakes occur. As the plates move, the edges get stuck because they are not smooth, but the rest of the plate keeps moving. When the force is too much, it breaks free and that causes an earthquake.



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Interesting Fact

Six Italian scientists were convicted of manslaughter and sent to prison for failing to predict the 2009 L'Aquila earthquake in which 309 people died. They appealed their cases successfully and were eventually not sent to prison.

You could try to find out:

1. How earthquakes are measured.
2. How easy they are to predict.
3. About other cases where prison sentences have been handed out in unusual circumstances.
4. How the appeals process works.

Questions About Earthquakes

1. On what do the tectonic plates float on and how many tectonic plates are there?

2. What can plate boundaries do when they are near each other?

3. What is a 'fault'?

4. Describe what causes earthquakes.

5. What is a seismograph?

6. How does a seismograph work?

Questions About Earthquakes

Answers

1. **On what do the tectonic plates float and how many are there?**

   The Mantle and there are about twenty.

2. **What can plate boundaries do when they are near each other?**

   Any answer from:
   - Crash into each other
   - Rub against each other
   - Move further apart
   - Get caught and stuck
   - One moves under the other

3. **What is a 'fault'?**

   Any answer that suggests: The line/crack/gap between plates.

4. **Describe what causes earthquakes.**

   Any answer that suggests: The plates get stuck whilst they are trying to move and eventually as they are freed, they cause a jolt which shakes the earth around it.

5. **What is a seismograph?**

   Any answer that suggests: A seismograph is a special piece of equipment that records earthquakes by drawing them.

6. **How does a seismograph work?**

   Any answer that suggests: Seismometers are securely fastened to the Earth, so when the ground starts to shake, the instrument's case moves too. What doesn't move is a weight that hangs on a string inside the case. When there is an earthquake, the case shakes with the ground but the weight does not, and it draws a line to show how much the ground shook.

Fractions Worksheet

Which fraction is larger? Use < or > to show this.

A

$\frac{5}{6}$ or $\frac{11}{12}$

$\frac{2}{5}$ or $\frac{3}{10}$

$\frac{1}{2}$ or $\frac{5}{8}$

$\frac{3}{4}$ or $\frac{8}{12}$

B

$\frac{2}{3}$ or $\frac{4}{5}$

$\frac{1}{2}$ or $\frac{2}{7}$

$\frac{1}{4}$ or $\frac{2}{9}$

$\frac{2}{3}$ or $\frac{5}{8}$

C

$\frac{3}{4}, \frac{3}{8}, \frac{7}{12}, \frac{1}{12}$

$\frac{3}{4}, \frac{4}{5}, \frac{1}{2}, \frac{6}{10}$

$\frac{1}{2}, \frac{5}{8}, \frac{7}{16}, \frac{3}{4}$

$\frac{3}{4}, \frac{8}{12}, \frac{5}{6}, \frac{4}{5}$

Add or subtract these fractions. Write answers as mixed numbers.

A

$\frac{2}{5} + \frac{2}{5}$

$\frac{4}{7} + \frac{1}{7}$

$\frac{4}{6} - \frac{2}{6}$

$\frac{8}{12} - \frac{3}{12}$

B

$\frac{3}{4} + \frac{5}{8}$

$\frac{2}{3} + \frac{4}{9}$

$\frac{7}{10} - \frac{3}{5}$

$\frac{8}{6} - \frac{7}{12}$

C

$\frac{5}{6} + \frac{2}{5}$

$\frac{1}{5} + \frac{7}{8}$

$\frac{7}{5} - \frac{3}{4}$

$\frac{1}{2} - \frac{2}{5}$

Find the fractions of the whole numbers.

A

$\frac{1}{6}$ of 30

$\frac{1}{9}$ of 18

$\frac{1}{5}$ of 45

$\frac{1}{3}$ of 21

B

$\frac{3}{8}$ of 32

$\frac{4}{7}$ of 42

$\frac{3}{4}$ of 36

$\frac{4}{12}$ of 60

C

$\frac{6}{8}$ of 320

$\frac{3}{4}$ of 160

$\frac{5}{9}$ of 360

$\frac{7}{10}$ of 4

Challenge 1: Pick 3 proper fractions from the sheet and write 2 equivalent fractions for each of them.

Challenge 2: Pick 3 mixed fractions from the sheet and convert them into improper fractions.

Challenge 3: Write some fraction word problems for a partner to solve. Can you make a word problem for each different type of fraction calculation above?

SCIENCE FUN AT HOME

Have some fun at home with these science activities from **Science Sparks** and the **Primary Science Teaching Trust**

BEFORE YOU START! Please read through this with an adult:

- Make sure you have read the 'IMPORTANT NOTICE' on the back of this page.
- If you have a space outside that you can use safely, then you can do the 'Try this outdoors' activity outside. Don't worry if not as you could still do it indoors.
- Talk to your adult about sharing the science you have done and if they want to share on social media, please tag **@ScienceSparks** and **@pstt_whyhow** and use **#ScienceFromHome**

BODY SCIENCE

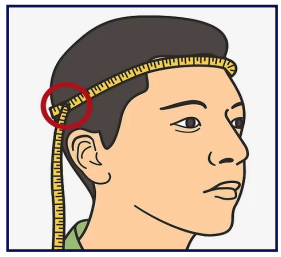
You will need

- Tape measure
- Chalks (or felt pens and a piece of paper as big as you!)

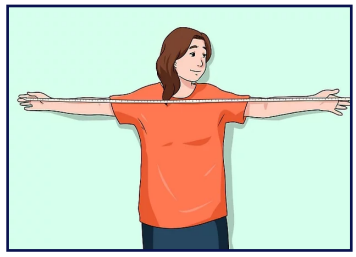
1 TRY THIS INDOORS .... True or False?

Use a tape measure (or string and a ruler) to find out if these statements are body facts or body fictions:

1. The circumference of your head (picture 1) is 3 times the length of your foot.
2. Your arm span (picture 2) is the same as your height.
3. Your height is 10 times the length of your hand (from your longest finger to your wrist).
4. Your height is 5 times the length of your thigh.



1. head circumference



2. arm span

WHAT DO YOU NOTICE?
Things to talk about ...

Can you find any body facts of your own? Are the body facts the same for adults and children? Who has the widest arm span in your family? Who has the widest hand span? Is the oldest person in your family the tallest?

2 TRY THIS OUTDOORS ....

If you have a hard surface outside that is okay for you to draw on with chalk then find a space where you can lie down. If not, use a big piece of paper or stick lots of smaller pieces of paper together. Ask someone to draw round you. Then inside your body outline, draw what you think is inside your body. See if you can include: heart, lungs, stomach, small and large intestine, kidneys, liver, bones and brain. Have a look at the pictures on this build a body page to see if you have put things in the right place!

WHAT DO YOU NOTICE?
Things to talk about ...

How many bones do you think you have in your legs and your arms? How do your stomach and intestines connect to your mouth?

3 WHAT IS THE SCIENCE?

Everybody is different and you will find variation between individuals and notice differences between adults and children, but generally: arm span is roughly the same as height, which is also about 10 times the length of the hand. Thigh length is roughly 4 times height, and foot length is roughly half of head circumference.

Our bodies are organised into systems. The circulatory system includes our heart and blood vessels. The lungs are part of our respiratory system. The digestive system includes the intestines and the stomach which is connected to the mouth via the oesophagus. The skeletal system includes bones, muscles and tendons.

4 MORE ACTIVITIES YOU COULD TRY

LEARN ABOUT YOUR SKELETON https://wowscience.co.uk/resource/essential-skeleton-4/

MAKE A MODEL LUNG! https://www.science-sparks.com/breathing-making-a-fake-lung/

LEARN HOW YOUR BODY REPAIRS ITSELF https://wowscience.co.uk/resource/why-do-cuts-heal/

Join in with THE GREAT SCIENCE SHARE - register for this year's event and take a look at these question maker tools to SHARE YOUR SCIENTIFIC QUESTIONS!