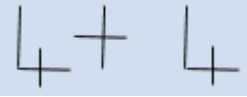



Investigate '8' Challenges

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| <p style="text-align: center;">Roman Numerals</p> <p style="text-align: center;">You need: Pens or pencils, lollipop sticks or matchsticks.</p> <p>If you only had 8 objects what is the largest number you can make representing it in Roman numerals? Smallest number?</p> <p>How many other numbers can you make?</p> | <p style="text-align: center;">Stringy 8</p> <p style="text-align: center;">You need: A piece of string or cotton, scissors</p> <p>How many different ways can you represent 8 with a piece of string? Does the length of the piece of string make any difference? Cut yourself a piece of string 8cm long. What can you do with this piece of string?</p> | <p style="text-align: center;">Recycle 8</p> <p style="text-align: center;">You need: 8 recyclable objects, scissors, glue</p> <p>Use 8 things that you can recycle and use it to make a model of anything you like. Can you make your model to be between 8 and 18cm tall? How tall is your model? Can you write a set of instructions on how to build your models?</p> |
| <p style="text-align: center;">Movers</p> <p style="text-align: center;">You need: Pens or pencils, lollipop sticks or matchsticks.</p> <p>Make the calculation below with your objects.</p>  <p>Then move the objects to see what other calculations you can make. What are all the different totals you can find? What about differences? Products? If you don't have matchsticks you can use pens or pencils.</p> | <p style="text-align: center;">8 squares</p> <p style="text-align: center;">You need: Squares of paper, post its are good for this, a ruler</p>  <p>If you have 8 identical squares. What arrangement of squares will give you the largest area? Largest perimeter? What if you had four 4x4 squares and four 5 x 5 squares? How could you arrange these to have largest area?</p> | <p style="text-align: center;">Calendar exploring</p> <p style="text-align: center;">You need: A calendar</p> <p>How many dates in each month have an 8 in the date? How many dates in each season of the year have an 8 in the date? How many dates in the year have an 8 in them? Look at January and March are all the dates with an 8 in the date on the same day of the week? Can you find all the dates that have an 8 in them?</p> |

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| <p style="text-align: center;">Button and Pasta Patterns</p> <p style="text-align: center;">You need: Buttons or different shape pasta or both</p> <p>How many different patterns can you make with your 8 buttons/pasta shapes? How many different ways can you sort your buttons/pasta shapes?</p> | <p style="text-align: center;">How old?</p> <p style="text-align: center;">You need: Paper and pen, calculator</p> <p>If you are 8 years old , can you work out how many months, how many weeks how many days how many hours how many minutes How many seconds You have been alive...</p> <p>Make a poster to show all these facts.</p> | <p style="text-align: center;">Highest Population</p> <p style="text-align: center;">You need: Paper and pen, calculator Internet access</p> <p>Find out the 8 most populated countries, their flags and capital cities. Make this information into a quiz to test your family.</p> |
| <p style="text-align: center;">How fit are you?</p> <p style="text-align: center;">You need: You and something to time yourself with</p> <p>What can you do in 8 seconds? 8 minutes? How far can you run? Walk? Jog? Skip How many start jumps? Hops? Skips?</p> | <p style="text-align: center;">8 Miles Away</p> <p style="text-align: center;">You need: A map</p> <p>Use a map, choose a place to start. Then using the scale of the map work out how far 8 miles is from your chosen start. Use a compass to draw an 8 Mile radius around your starting place. What places are 8 miles from you?</p> | <p style="text-align: center;">8 from around the world</p> <p style="text-align: center;">You need: Internet access</p> <p>How is 8 written in the following languages? Greek Bengali Urdu Chinese Hebrew</p> <p>Learn to count to 8 in several languages.</p> |
| <p style="text-align: center;">Scrabble Letters</p> <p style="text-align: center;">You need: Scrabble letter, a dictionary, thesaurus</p> <p>Using 8 scrabble tiles, find as many words as you can with a total greater than 12 but less than 16. Can you find any 8 letter words with a total greater than 25? <i>Why not use a dictionary/thesaurus to come up with some new words that you don't know?</i></p> | <p style="text-align: center;">Tallest Mountains</p> <p style="text-align: center;">You need: Paper and pen Internet access</p> <p>Find out the 8 tallest mountains in the world and what countries they are in. Find out some interesting facts about each mountain.</p> | <p style="text-align: center;">8 Lines</p> <p style="text-align: center;">You need: Pencil, paper and ruler</p> <p>Use 8 different length lines to make a picture. Can you use a parallel lines? Perpendicular lines? What is the total length of the 8 lines you have drawn?</p> |

Skittles

You need:
Plastic bottles

Find 8 plastic bottles and make yourself a set of skittles.

Play skittles in your garden.

8 Compass Directions

You need:
A friend, compass (this could be on your phone)

In your garden or a room in the house mark N, S, E, W.
Make yourself a route up that uses 8 compass directions.

Can you get a partner to follow your route?
Try it blindfolded.
Why not make up a maze to try and find your way through?

Circle Fun

You need: paper, pencil, ruler, crayons and plate.

Draw round a plate 3 or 4 times to make yourself some circles.

Using 8 lines can you cut a circle into as many parts as possible?

Can you use 8 lines to cut a circle into 12 parts?

Can you use 8 lines to cut a circle into 16 parts?

Number words

You need:
Paper, pen and a dictionary

How many number words can you find with 8 letters
e.g. fourteen?

You can use a dictionary / number line/ word mat to help you.

What is the largest number you can find?

Can you crack the code for the 8 times table

You need:
Paper and pen

A x B = B
D x B = AE
G x B = DJ
J x B = GD
C x B = JK
E x B = JB
F x B = CE
B x B = EJ
H x B = FD
AK x B = BK
AA x B = BB
AD x B = HE

Find out the values of each letter.
Then write some division facts.

Broken Calculator

You need:
Paper and pen

The number 8 is broken on the calculator.
How would you solve these and check your answers a different way?

6 + 8 =
8 x 5 =
18 - 3 =
2 x 8 x 2 =
180 ÷ 9 =
24 x 8 =

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| <p style="text-align: center;">Constellations</p> <p style="text-align: center;">You need: Book on space or Internet access</p> <p>Can you find constellations with 8 stars in them? Have a go at seeing if you can spot them at night? Try drawing them.</p> <p>https://astronomy.com/observing/astro-for-kids/2008/03/learn-the-constellations</p> | <p style="text-align: center;">100 edible things</p> <p style="text-align: center;">You need: 8 edible things Thread or strawberry laces</p> <p>Make a necklace or a picture with 8 edible things.</p> | <p style="text-align: center;">Get Musical</p> <p style="text-align: center;">You need: Pen and paper, Musical instrument</p> <p>Make up a song or a rap with 8 lines in it. Teach it to someone else. Play it on any musical instrument.</p> |
| <p style="text-align: center;">Keep Fit</p> <p style="text-align: center;">You need: You!</p> <p>Make up a keep fit routine with 8 moves in it. Repeat it 8 times. What is the total time it took you? Try it each day to improve your fitness, keep a record of your times. Teach your routine to someone else.</p> | <p style="text-align: center;">Origami</p> <p style="text-align: center;">You need: Paper to fold</p> <p>Learn some Origami. What shapes can you make with 8 sides? Can you make an 8 pointed star?</p> <p>https://www.origami-fun.com/origami-for-kids.html</p> | <p style="text-align: center;">8 times table</p> <p style="text-align: center;">You need: You!</p> <p>Make up a fun way to learn your 8 times table. What about your 4s or 16s?</p> <p>https://www.youtube.com/watch?v=dSnNkgMbtfS</p> |
| <p style="text-align: center;">8cm</p> <p style="text-align: center;">You need: Ruler, wool or string</p> <p>Cut a piece of string /wool that is 8cm long.</p> <p>How many things can you find in your house that are 8cm long? 8cm tall? Can you put together 2 or 3 items that total 8cm in height or length?</p> | <p style="text-align: center;">8 bottle tops or buttons</p> <p style="text-align: center;">You need: Bottle tops or buttons</p> <p>Make up a game similar to noughts and crosses using your 8 bottle tops or buttons.</p> | <p style="text-align: center;">Pompom Challenge</p> <p style="text-align: center;">You need: Wool, card, scissors, something to draw round to make circles, pen</p> <p>Make yourself two cardboard circles the same size. Cut out the middles leaving an edge on both of about 1cm.</p> <p>Put the 2 pieces of card together and attach a piece of wool.</p> <p>Waewe the wool in and out of the circle all the way around.</p> <p>Change colours of wool if you want. Make 8 pompons and then turn it into an animal.</p> |