

Maths: Counting and Ordering Numbers to 20

Home Learning Challenges

Write out the numbers 0-20 on some paper or card, cut them up and then ask a grown-up to mix the numbers up – don't peek! Then, see how quickly you can put them into the correct order. You could ask someone to time you and then see if you can get faster when you try again.

Collect 20 leaves from your garden or a local park. Write the numbers 1-20, one on each leaf, using a thick marker pen. Use a hole punch to make a hole in either end of the leaves and then thread them onto a piece of string. Don't forget to put them in the correct order! You could then put up your homemade number line in your bedroom to help you remember the order of the numbers.

Next time you open a packet of raisins, some carrot sticks or apple pieces, count out how many you have. If you're eating them with a friend, count how many they have too. Can you write the numbers down?

Ask an adult to hide the numbers to 20 around your room, house or garden. See if you can find all 20 and place them in order. You could ask someone to tell you a number to find. Can you remember what the number looks like and find it?

Draw circles on a piece of paper and put different coloured paints in shallow trays. Choose a number between 1 and 20. Dip your finger into paint and add that many petals to one of the circles, making a flower. Count the petals to check how many you have and write that number in the middle of the circle. Choose another number and do the same to another circle on your page. Fill up your page with colourful flowers, each with different amounts of petals.

Write the numbers 0-20 on plastic building bricks. Make a tower of 21 bricks, seeing if you can put the numbers in the correct order. Start with 0 at the bottom and 20 at the top and then try starting with 0 at the top and 20 at the bottom.

Find One More or One Less

Home Learning Challenges

Ask your grown-up to tell you a number. Place this number of raisins or cereal pieces on your plate. If your grown-up says 'one more', can you add one more and say the number you have? If your grown-up says 'one less', can you eat one then count the number you have left?

There are 6 frogs on a log. One jumps into the pond. How many frogs are left on the log? Can you draw a picture to show the number of frogs?



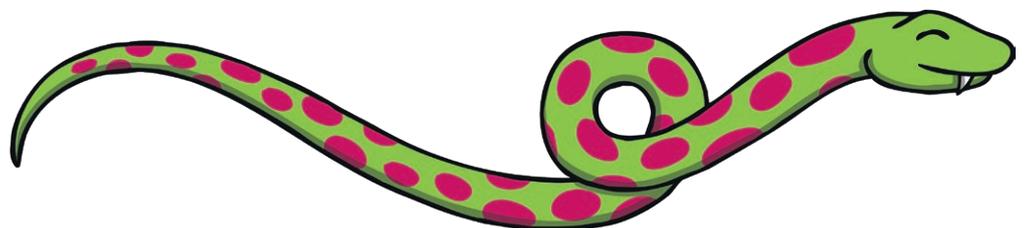
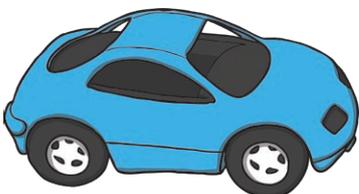
Ask a friend or grown-up to place some small toys in front of them and say how many they have. Can you count out a group of toys that is one more?



Build a tower with 7 bricks. Can you build two more towers of bricks, one that uses one less than 7 bricks and one that uses one more than 7? Can you put these in an order? What do you notice?

Park 5 toy cars in pretend car park. If one car drives away, will there be more or fewer cars? Drive one away and check by counting. Park a different number of cars in the car park and do this again.

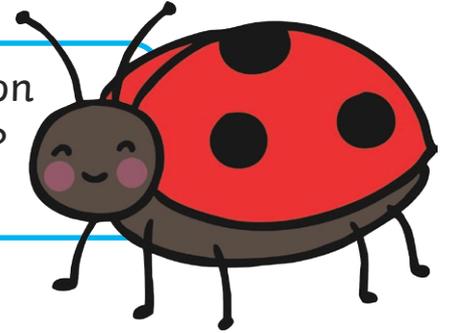
Ask a grown-up to draw a spotty snake. How many spots does it have? Can you count them? Can you draw a snake that has one less spot?



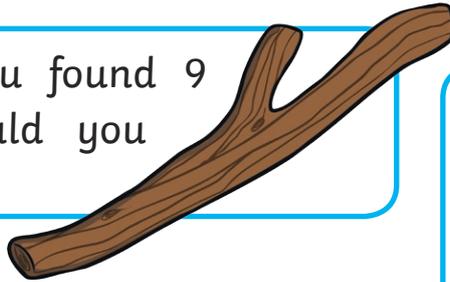
Solving Problems - Doubling

Home Learning Challenges

If a ladybird has 4 spots on one side and 4 spots on the other side, how many does she have in total?
Double 4.

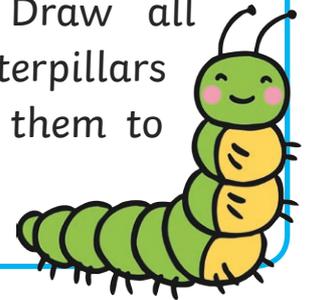
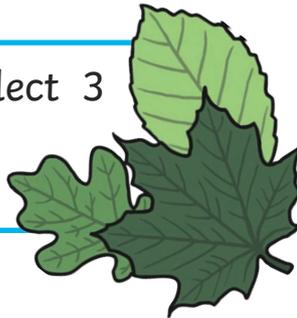


Collect 9 sticks. If you found 9 more, how many would you have altogether?



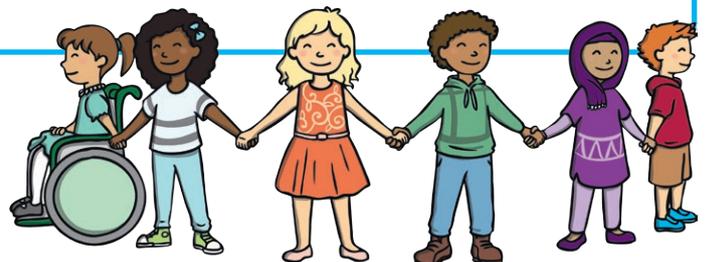
Draw 7 caterpillars on a large leaf. Double the amount. How many caterpillars are there in total? Draw all the caterpillars and count them to check.

Collect 3 leaves outside. Collect 3 more. How many do you have altogether?



Jordan made 6 cupcakes for her class, but she needs to make more. There are double that number of children in her class. How many cupcakes does she need in total? Can you make that many cupcakes?

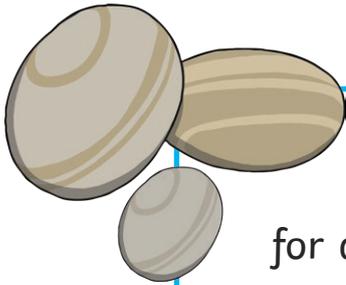
Some preschool children visit your class for an afternoon. There are usually 10 children in your class but today there are double that amount. How many children are there altogether?



Solving Problems - Halving

Home Learning Challenges

April made 6 cupcakes and ate half of them. How many did she eat? How many did she have left? Can you draw a picture of the cupcakes April had left?



Count out 10 sticks or stones. Put half into the soil for animals to hide under and put half in a wooden box for an insect home. How many do you have in the box? How many in the soil?



Draw 8 bottles of paint on a classroom shelf. Colour half the paint bottles in blue. How many are blue?



If there were 16 cars in a car park at lunchtime and half were driven away, how many would be left in the afternoon? If you have some toy cars, you could work it out using those.



There are 12 children in Mrs Peacock's class. Half of the children are girls. How many are girls? How many are boys?

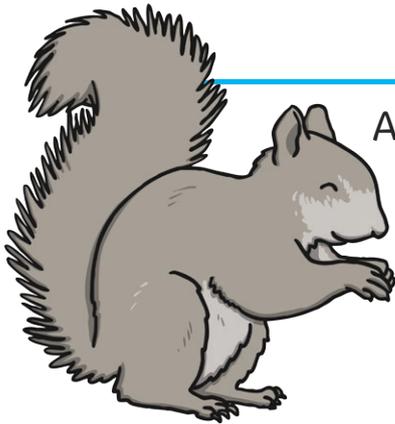
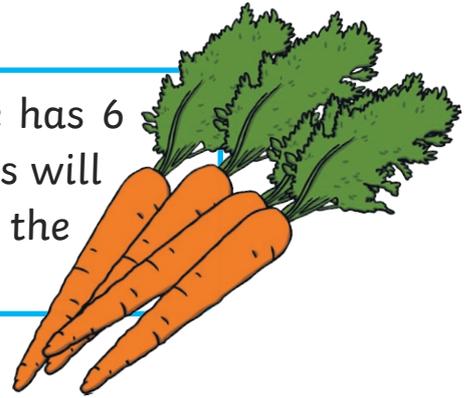


There are 22 footballers on a field and half of them are wearing red. How many footballers are in red? Draw 22 T-shirts and colour half in red to check.

Solving Problems - Sharing

Home Learning Challenges

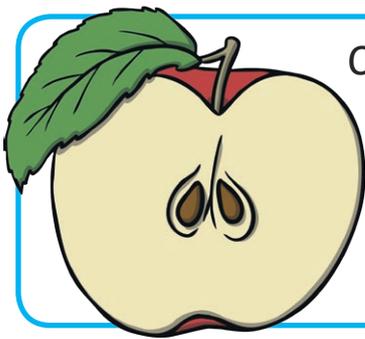
Abed has 3 rabbits who love eating carrots. He has 6 carrots to share between them. How many carrots will each rabbit have? Draw 3 rabbits and share out the 6 carrots to check.



A squirrel collects 10 nuts to share between her 5 babies. How many nuts will each baby have? Draw the nuts to check.



Share out 15 biscuits between your favourite 5 toys. How many biscuits does each toy have? Is it fair?

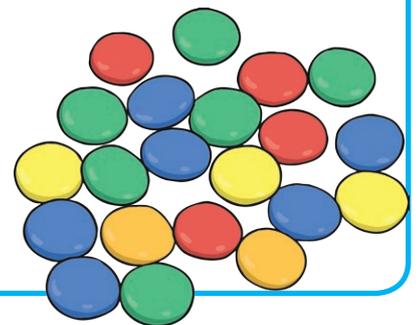


Cut up an apple into 8 slices. If you shared it equally between yourself and a friend, how many pieces would you have each?

Make a cake for some friends and share it out. If you cut it into 12 pieces and there are 4 people, how many slices could each person have?



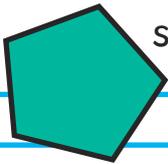
If a packet has 20 sweets in and you share them equally between you and 3 friends, how many will you get each? Draw 20 sweets on a sheet of paper, equally sharing them into the 4 corners of the paper. Count how many are in each corner.



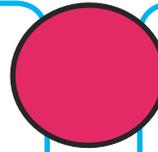
Maths: Naming 2D shapes

Home Learning Challenge

Play 'Guess the Shape' with a friend or family member. Describe a shape, remembering to say how many sides and corners it has and to be specific, e.g. "It has 4 sides. It has 4 corners. It has 4 equal sides." See who can guess the most shapes correctly.



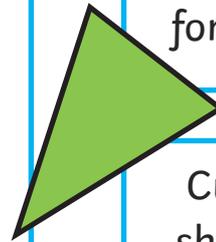
Go into your garden or a park near your house and collect some sticks, pebbles and leaves. See what 2D shapes you can make using them. Which shapes are easiest to make using the sticks? Which objects are best for making a circle?



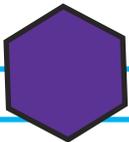
When you go to the shops or to the park, see if you can see any 2D shapes around you. There might be some hiding in the packaging in the supermarket, or on the swings and roundabout. You could draw some of the shapes you see.



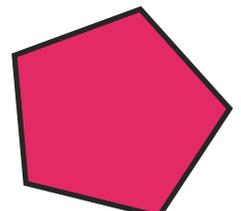
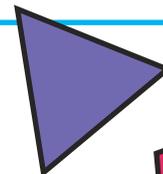
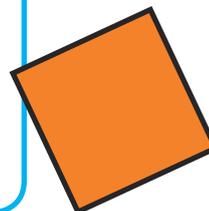
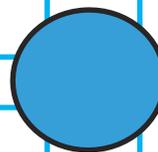
Cut some different shapes out of paper and attach some sticky tack to the back of the shapes. See how many different things you can build with the shapes. You can move the shapes around to make lots of different pictures if you use sticky tack.



What places, animals or objects can you draw using only 2D shapes? Can you make a train using rectangles, circles and squares? Can you make a rocket using rectangles, triangles and circles? What else can you make?



When you are having a meal at the table, count how many different 2D shapes you can find. What shapes are on your plate, glass and tablemat? You could ask your family to help you find as many as you can.

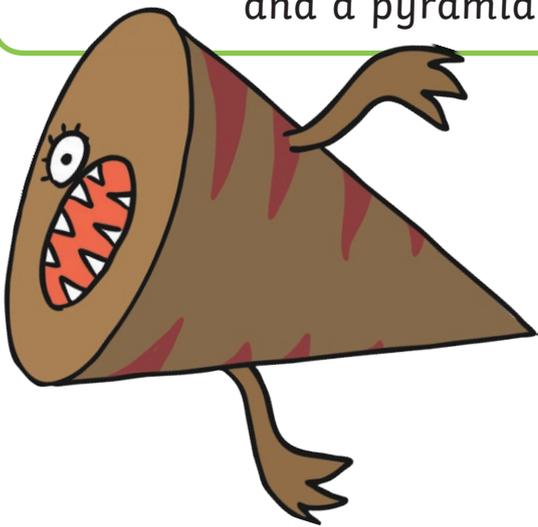


Maths: Naming 3D Shapes

Home Learning Challenges

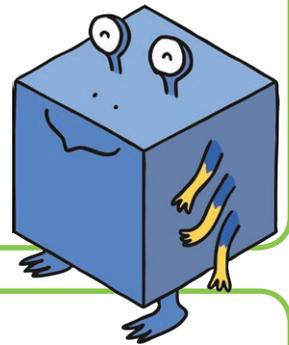
Look at some empty packages and boxes. What shape are they? Can you find a cube, a cylinder or a cuboid shape? Bring in some 3D shape boxes to show the class.

Use some playdough or salt dough to make 3D shapes. Can you make a sphere, a cube, a cuboid, a cylinder and a pyramid?



Use some empty cardboard boxes and packaging to make a model. Maybe you could make a model house, a car, a castle or a robot. Talk to an adult about the different shapes you use. Which shapes are easiest to build with? You could take a photo or draw a picture of your finished model.

Make a collection of small objects that are 3D shapes, such as a small ball, a toy building brick, a dice and a glue stick. Hide the objects in a bag and then put your hand in the bag to choose one of the objects. Describe the shape to an adult and see if they can guess the shape you are holding. Then, they could describe a shape for you to guess!



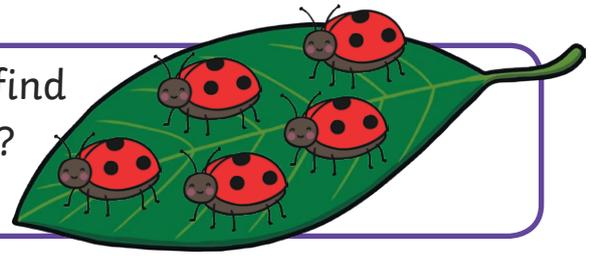
Go on a 3D shape hunt around your house. What 3D shapes can you find? See if you can find a sphere, a cube and a cuboid. Can you find any other 3D shapes? What are they called?

Go on a 3D shape hunt, next time you are in a shop. What different 3D shapes can you find? Try looking at different food packaging (tins and boxes are some good examples).

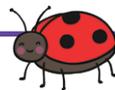
Addition: Adding Objects and Counting On

Home Learning Challenges

There are 5 ladybirds on the leaf. Can you find some more ladybirds hidden around the page? How many are there altogether?



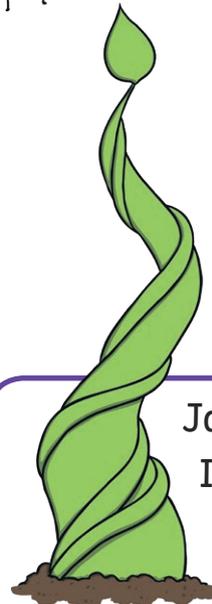
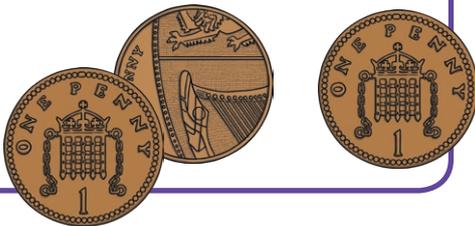
In a football match, Anna's team have scored 3 goals. Then, Anna scores 1 more goal! How many goals have they scored altogether?



There are 6 people on a bus. Then, 2 more people get on. How many people are on the bus altogether? Try drawing a picture to help you work out the answer.



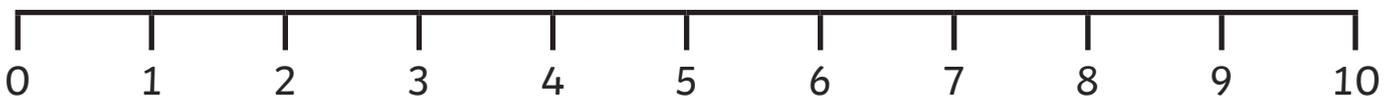
Azmeer has 5 1p coins in his money box. His grandad gives him 4 more 1p coins. How many does Azmeer have altogether? Ask a grown-up to help you find some 1p coins to check your answer.



Jack's beanstalk is 8cm tall. It grows 2cm taller. How tall is Jack's beanstalk?



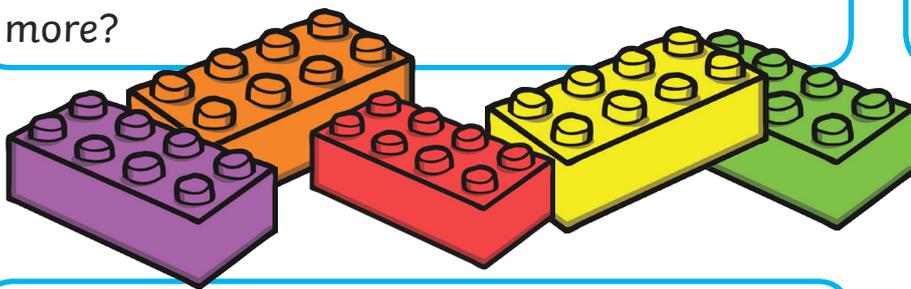
Freddie Frog is sitting on the number line. If he jumps on two more jumps, which number would he land on?



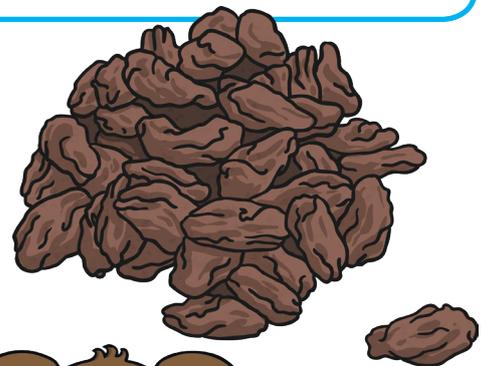
Using Quantities and Objects They Subtract Two Single-Digit Numbers and Count Back to Find the Answer

Home Learning Challenges

Find some building bricks or blocks in two different colours. Make a tower using one colour, while your partner makes a tower in the other colour. Are your towers the same? Which tower used fewer bricks? Which has more?



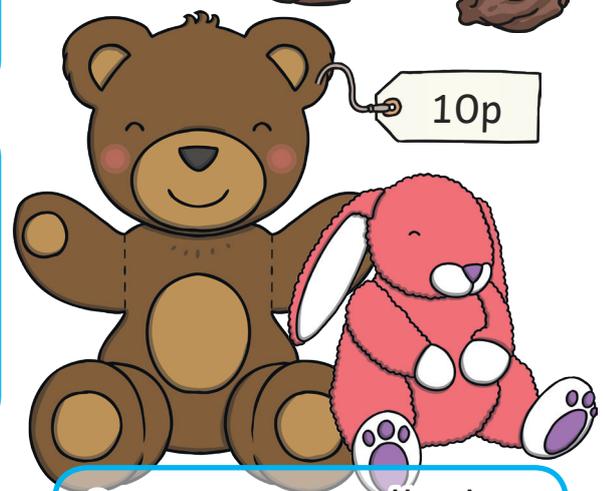
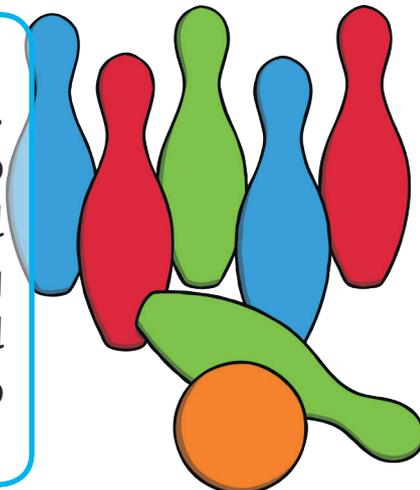
Place 10 raisins or small treats on a plate. If you eat 5, how many will you have left? How do you know? Can you eat 5 and check?



Line up 8 toy cars in a car park. If 3 toy cars drive away, how many will be left? Count back from 8 as you take away 3.

With a partner, draw a large 0 - 10 number line on the ground in chalk. Stand on number 10. Ask your partner to say a number between 1 - 10. Count back that number by jumping along the number line.

Set up some skittles or empty plastic bottles. How many skittles do you have? Roll a ball and count how many you have knocked down. How many do you have left?



Set up a small shop using toys or food. Give each item a price label with a price of up to 10p. Now, imagine that you are having a sale. Can each price go down by 2p?