

# Year 3 Maths Everywhere – We're all going on a measure hunt!

Choose a target measurement. For example, 250g, 250ml or 25cm.

Gather items from the house (and garden) and sort them into groups that you predict are about 250g, 250ml or 25cm.

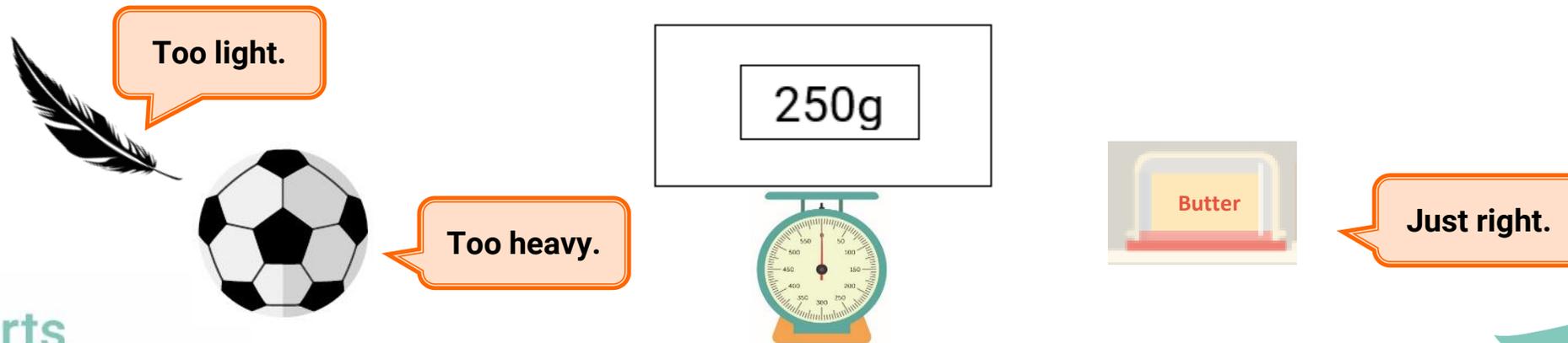
Work with a partner or ask someone to see how close you were to the target measure.

Try estimating 250g or 250ml by pouring rice or water into a container.

Measure your estimated amount. How close were you to the target measure?

Try again to see if you can get closer to the target this time.

Play the 'measure hunt' again with different measurements and include some that are very small such as 5mm, 15g or that hold 15ml.



# Year 3 Maths Everywhere – Arranging the family

Make cards with names on them for each person in your household and maybe pets and favourite toys too! Place the cards on the table to show where everyone needs to sit.

How many days will it take for you to try every possible way of sitting at the table, if you changed the cards around every day?

What if everybody has to sit next to just one person who is different each day?

What if you can only change two places each day?

Draw a plan of the table at home on a piece of paper and record the different ways of changing places at the table.

Explain your approach to someone else and how you know that it is a different arrangement each time.

How will you know when you have found all the possibilities with no repeats?

Can you find a pattern between the number of guests and the number of ways you can sit around the table?



# Year 3 Maths Everywhere – Nim

- Play this game with a partner.
- Choose one group of seven objects.
- These can be buttons, pencils, counters, marbles or anything that you can find.
- Take it in turns to take one or two items at a time.
- The winner is the person who makes the last move so that there is nothing left.
- Take it in turns to go first, play the game again and keep a running score.

Does it matter who goes first?

What strategies could you try?

What happens if you have a different amount of objects?

Does it matter if the amount of objects is odd or even?

Try with 21 objects where each player can take 1, 2 or 3 each go.



# Year 3 Maths Everywhere – Times Tables Hopscotch

Draw a giant hopscotch grid outside and use a stone to throw, or draw a grid on paper and use a counter or a pasta shape to flick onto the grid.

Start with the numbers 0 to 12.

Choose a times table for the squares (like the picture that shows the 4 times table).

Jump or use your fingers to get to where the number that your counter/stone has landed. Then you multiply that number in your chosen times table.

You say the times tables and the multiple it represents.

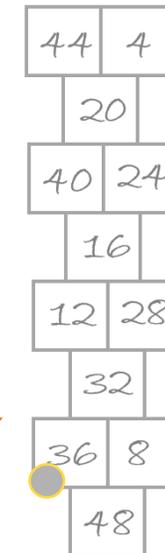
Change the numbers in the hopscotch to show the products and use division to say your answer (this picture shows how this could be done).

Play the game several times and practise the 2, 3, 4, 8 and 10 times tables.



**$6 \times 4 = 24$**

**There are 6  
fours in 24**



**36 divided by  
4 is 9**



# Year 3 Maths Everywhere – Shape division?

Gather some lolly sticks, twigs or drinking straws.

Select a random number of sticks or straws and decide how many of the same shape that you can make. If there are remainders use them to create different shapes.



**I think that I can make five hexagons with these and one quadrilateral.**

**I think that I can make seven quadrilaterals and one hexagon.**

How many different shapes can you make?  
Remember to name them.



# Year 3 Maths Everywhere - Clocks

Go online and have a look at how to make a water clock.

There's a nice example here: <https://www.nestlepurelife.com/uk/how-to-make-a-clock-water>.

If you have the resources and some adult help then try to make one.

Use it to time some events. For example, how many start jumps you can do in a minute.

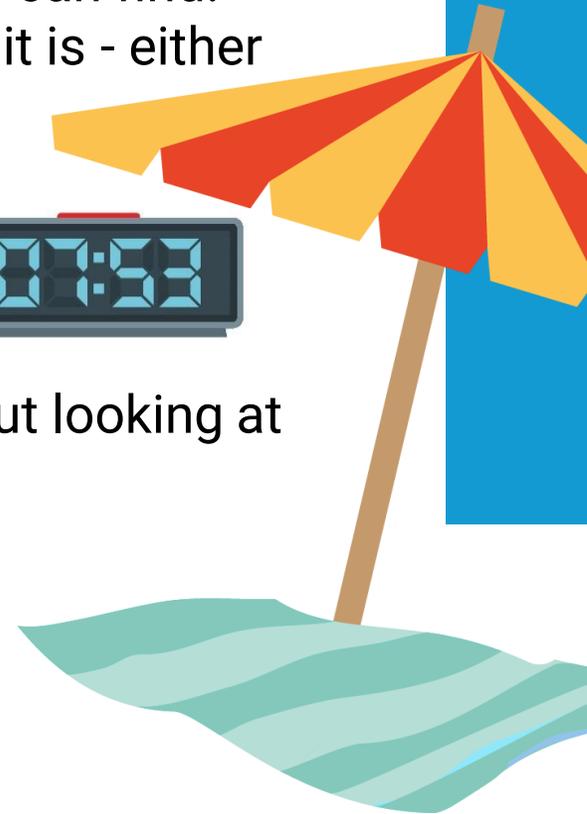
On a walk and in your home take some photos of all the different clocks you can find.

Print them out and write the times that they are telling and what time of day it is - either between midnight and midday or between midday and midnight.

Make a timetable of your day. Write the times that events start and end.

Ask an adult to help you read the time.

An adult can also challenge you to estimate what time it is in the day (without looking at a clock). Check on the clock to see how close you were.



# Year 3 Maths Everywhere – Secret Calculations

Play this game with a partner.

Draw the number grid shown

Player 1 chooses a two digit number. For example, 43.

Player 2 adds or subtracts a secret number to that number and tells player 1 the result.

For example, if player 2 says 73 then player 1 has to calculate that 30 has been added and write the calculation used ( $43 + 30 = 73$ ).

Player 2 checks this is correct and then crosses out 43, 30 and 73. These numbers can no longer be used.

If your calculation is agreed to be correct then you score a point.

Repeat with Player 2 choosing a number and Player 1 secretly adding and subtracting another.

However, this time none of the crossed out numbers may be used.

Play 20 times or keep going until none of the numbers left can be used to make a calculation. The player with the most points wins.

11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100



# Year 3 Maths Everywhere – Food Fractions

Look at some of the food that has been purchased from shops or that has been made at home.

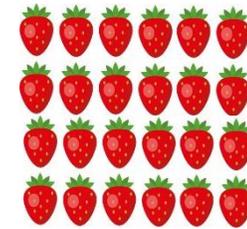
This could be selection packs of marshmallows, cakes and slices or anything that you like.

Work out how many people are at home at how the food can be shared equally and fairly.

If a pizza is to be shared equally between six people, how many cuts will need to be made?

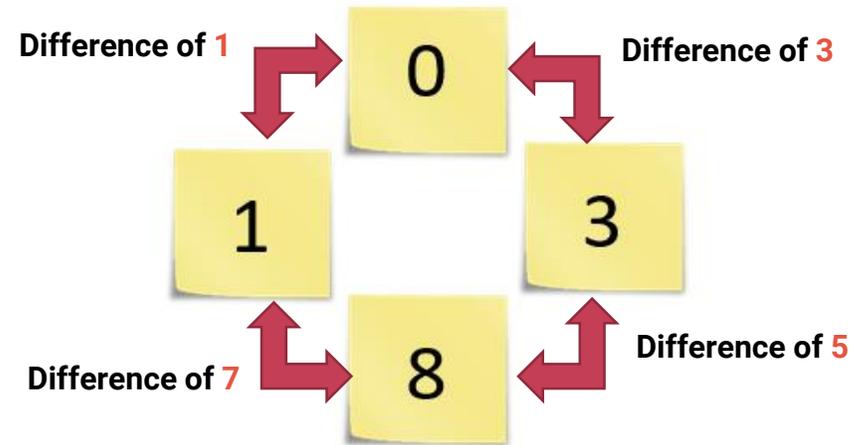
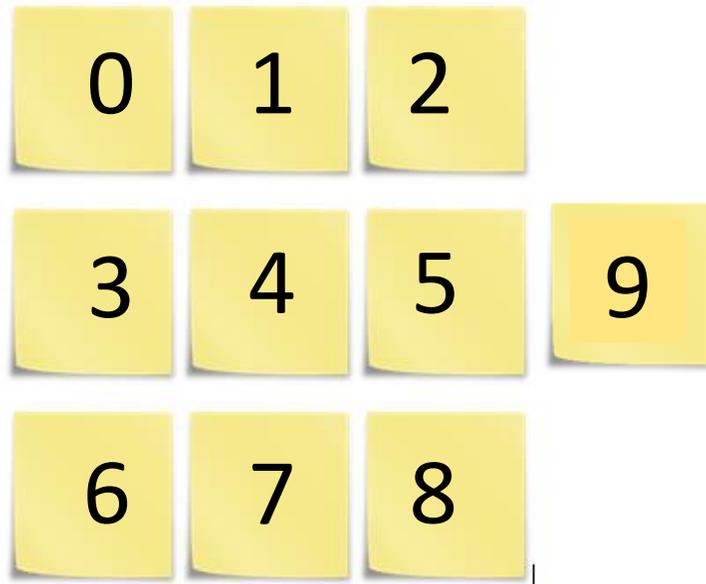
If 24 strawberries are shared between eight people, how many will each person receive?

The food may not share equally as whole numbers. For example, if a box of 12 cakes is shared between 8 people then the answer would be one and a half as four of the cakes would need to be cut in half. This would mean that 8 people would receive one whole cake and another half of one each.



# Year 3 Maths Everywhere – Differences next door

Write the numbers 0 – 9 on sticky notes or square pieces of paper (one number on each).  
Select four of the sticky notes or paper to mark out a cross pattern (like below) so that the difference between the nearest numbers is always odd.  
How many examples can you find where the difference between next door numbers is odd?  
Now make the least changes you can so that each difference is an even number.



7, 1, 3 and 5 are all odd numbers



# Year 3 Maths Everywhere – Shopping



You can spend up to £10 at the snack bar to buy items for you and your family. Make lists of which items you would like to buy and what change would you receive. Find ten different ways of spending as close to £10 as possible without exceeding £10. Put them in ascending order (the highest amount at the top).

Is it possible to spend £10 exactly?

Make up a menu for your meals today.

Decide on prices if it was a Café.

Work out the price you would pay at your café.

