

Help Your Child Love Maths!

National Numeracy Champions

How do you feel about maths?

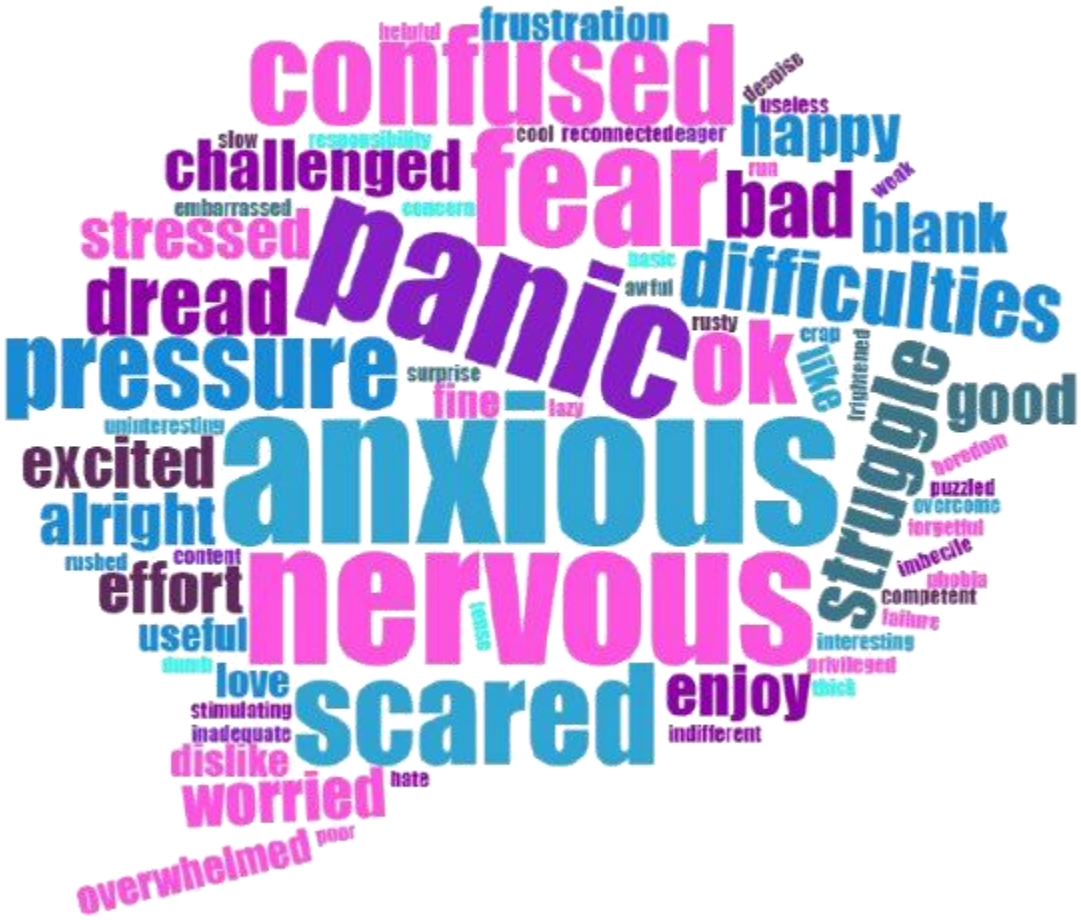


Discussion



How do you feel about maths?

How do you feel about maths?



National Numeracy's top tips for families

1

Point out maths in the real world



2

Be positive about maths



3

Praise effort rather than talent



4

Improve your own confidence



National Numeracy's top tips for families





Point out the maths in everyday life

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Maths in everyday life

Where do we see maths and numbers in everyday life?

"Students' motivation to learn maths is higher among students whose parents discuss how mathematics can be applied to everyday life," (The Programme for International Student Assessment 2013).



Discussion



Where do we see maths and numbers in everyday life?

Maths in everyday life



Planning journeys

- Using time
- Reading timetables



Shopping

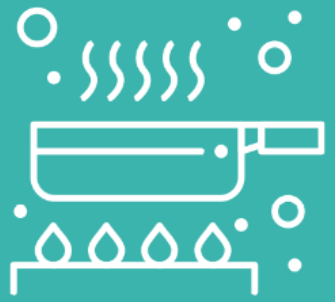
- Recognising coins
- Checking change
- Working out sale prices
- Using a budget



D.I.Y.

- Measuring materials
- Using ratios to mix materials

Maths in everyday life



Cooking

- Counting and weighing ingredients
- Using metric and imperial measurements
- Scaling up recipes



Making financial decisions

- Setting up a monthly budget
- Interest rates



Reading the news

- Understanding graphs
- Understanding facts and figures, including percentages



Be positive about maths

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Be positive about maths

Here are some things people sometimes say to children about maths.

- Have you heard these things being said?
- What could be said instead to encourage positive attitudes in children?



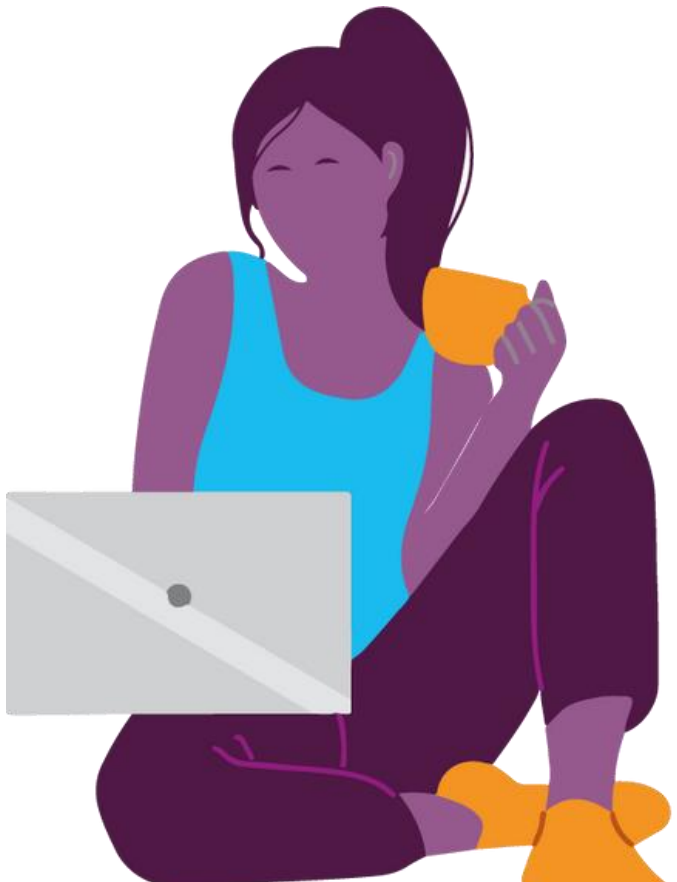
Be positive about maths



"I was never any good at maths at school and it did me no harm."

Be positive about maths

"You won't need to worry about maths once you've finished school."



Be positive about maths



"It's ok. You can't be good at everything. You're better at literacy. Your brother is more of a maths-y person."

Be positive about maths

"Well done for getting that right. You're so clever."





Praise effort, rather than talent

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Praise effort, rather than talent

Praising talent:

Well done. You're so clever.

You're naturally really good at this.

It's amazing that maths is so easy for you.

Praising effort:

Well done for working so hard at that.

You've learned so much, well done.

It's great that you kept going with that even when it was tricky.

Growth Mindset

Fixed Mindset

Talent is innate

Some people just can't do certain things

There is no point in trying to improve if you aren't born with the ability

Growth Mindset

Ability is not fixed

You can learn and improve at anything is you put enough time and effort into it

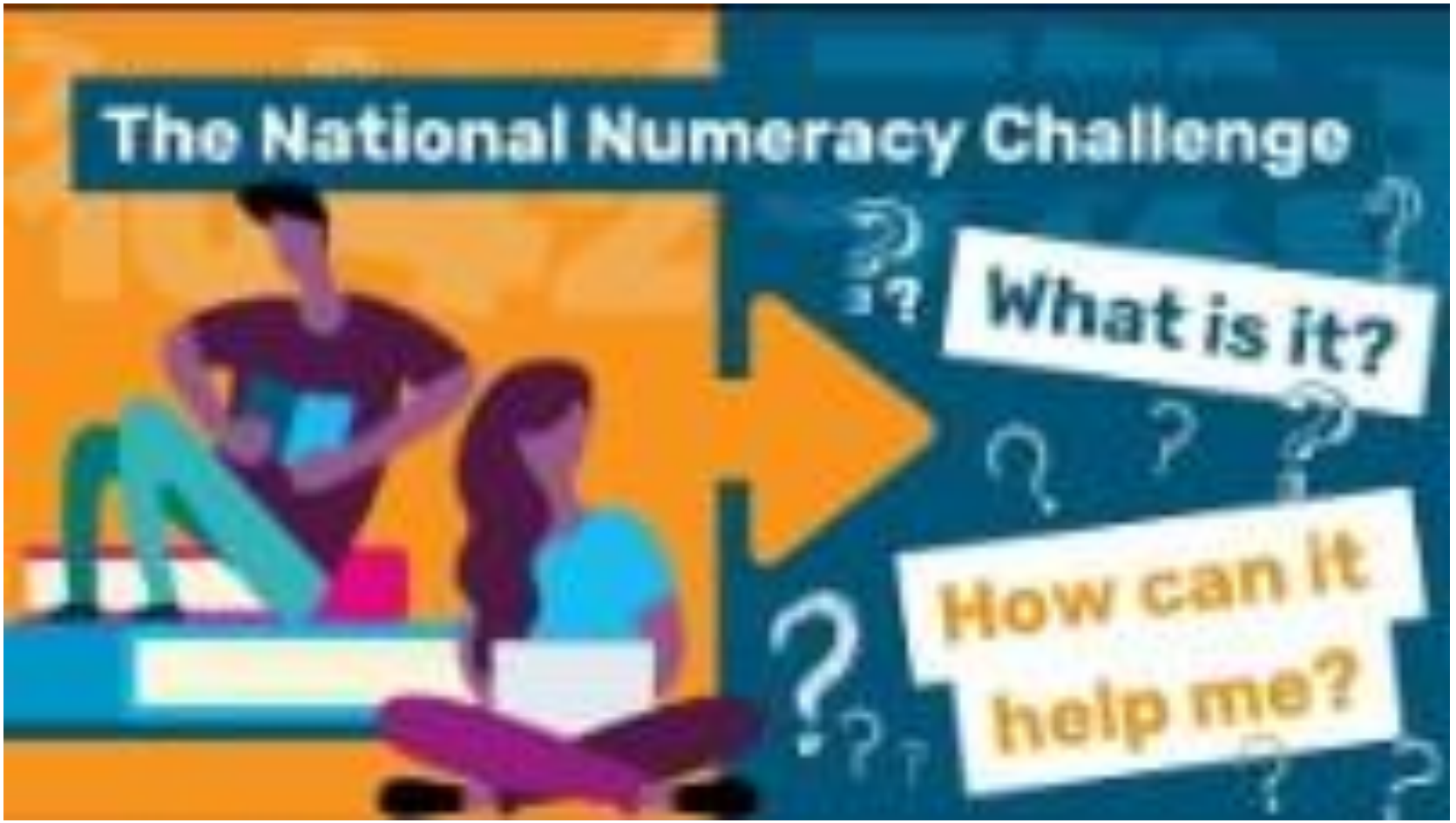
If you put your mind to it, you will be able to improve: ability isn't something you're born with



Boost your own confidence

National Numeracy Champions

Boost your own confidence



National Numeracy Challenge

National Numeracy Challenge

www.nationalnumeracy.org.uk/challenge/sfpaq



- It will replace fortnightly Maths homework – nothing extra
- Rec- Year 6 Initiative
- Maths Challenges to complete at home

Measures

Family Maths Toolkit

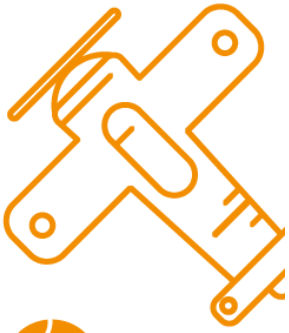
Choose 5 of your favourite toys.

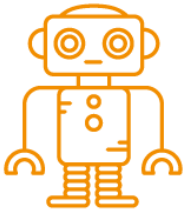
Put them in order from shortest to tallest.
Are any taller than the length of your hand?

Now put them in order from lightest to heaviest.
Are they in the same order?
Which are in a different place?

Find 5 things in the food cupboard.
Estimate which will be the lightest and heaviest.
Feel them in your hands – were you right?

What is the lightest piece of food you can find?







Parent comments:

Pupil comments:

Curriculum Link

Use and compare measures using non-standard units.

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Getting on with numbers

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At the zoo

Family Maths Toolkit

At the zoo, there are many different types of animals. Some have 2 legs, some have 4 legs, some have more than 4 legs and some have none at all!

Can you and your family think of all the zoo animals you like and count how many fit into each group according to how many legs they have?

You could draw a picture, a pictogram, a tally chart, bar charts or a table. Could you think of an animal for each group? Which group had the most?

How many more had 4 legs than had no legs?





Parent comments:

Pupil comments:

Curriculum Link

Collate, organise and compare information using pictograms, tally charts, block diagrams or simple tables.

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Cupcakes recipe

Family Maths Toolkit

Here is a recipe for 12 cupcakes:

Ingredients

- 110g/4oz butter or margarine (softened)
- 110g/4oz caster sugar
- 2 eggs, lightly beaten
- 1 tsp vanilla extract
- 110g/4oz self-raising flour

For the buttercream:

140g /5oz butter, softened; 280g/10oz icing sugar; 1-2 tbsp milk; a few drops of food colouring



Talk about the abbreviations – what does 'g' mean? How many grams in a kilogram? How much does the packet of caster sugar weigh? How much do you think 1 spoon of sugar would weigh? What is the difference between 'tsp' and 'tbsp'? Would it make a difference if you muddled them up?

This recipe makes 12 cupcakes – how many would each member of your family get?

If you wanted to have a party, what would be the ingredients for 24 cakes?

How many cakes could I make if I only had 55g/2oz of butter?

Try the recipe!

Parent comments:

Pupil comments:

Curriculum Link

Measure, compare, add and subtract mass (g/kg); the comparison of measures including simple scaling, eg. 2 times as much, connecting to multiplication.

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Special offer

Family Maths Toolkit

When you go to the shops do you ever look for special offers like two for the price of one? Or buy one, get the second half price?

See how many special offers you can find by looking in a shop or online – are they all good bargains? Sometimes offers are not as good as they seem. For example, two 1 litre bottles of fruit juice for £5.00 when a 2 litre bottle costs £4.99!

Can you find any interesting offers?

Can you choose something you like to eat or drink and make up a good special offer for it?



Family comments:

Child comments:

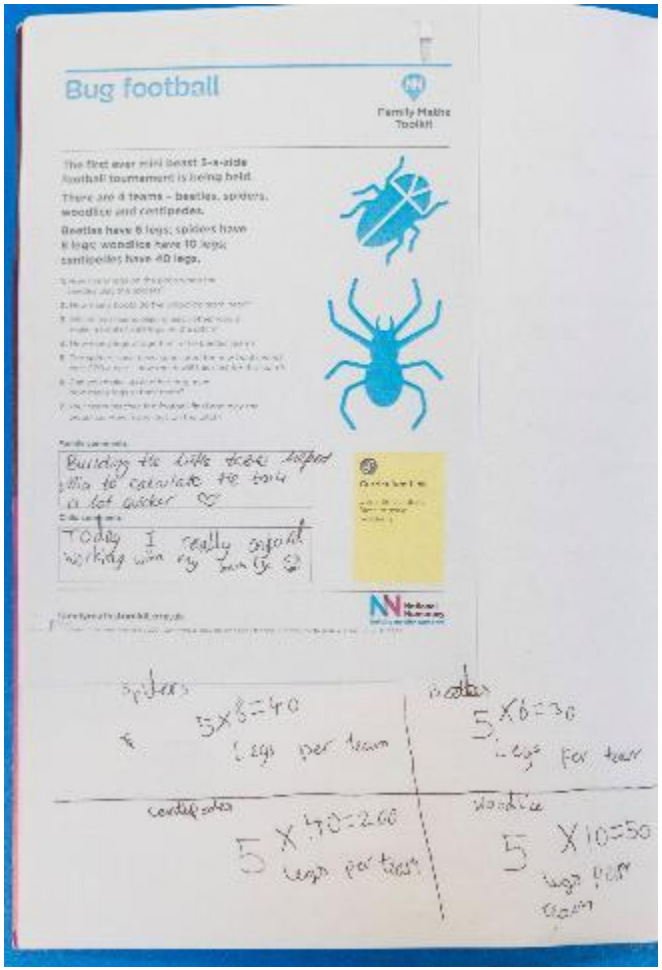
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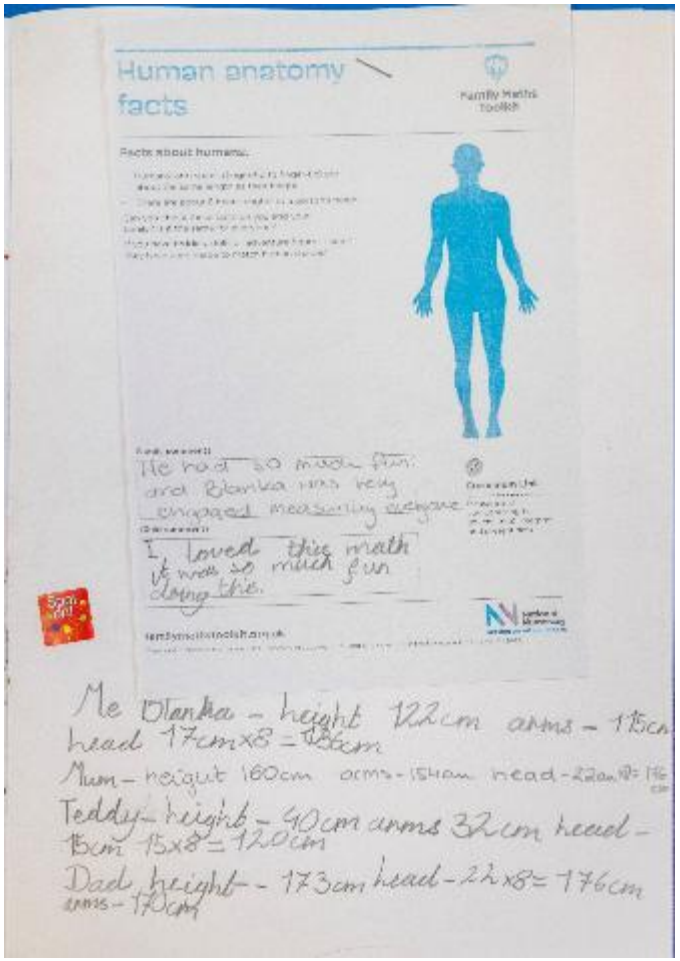
Solve money problems in a real life context, using two decimal places and thinking mathematically.

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Getting on with numbers

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Bug football
Family Maths Toolkit
The first ever mini beast 5-a-side football tournament is being held.
There are 4 teams – beetles, spiders, woodlice and centipedes.
Beetles have 6 legs; spiders have 8 legs; woodlice have 10 legs; centipedes have 40 legs.
Building the little shed helped Ellie to calculate the task a lot quicker ♡
Today I really enjoyed working with my family ☺
spiders
5X8=40
Legs per team
beetles
5X6=30
Legs for team
centipedes
5 X 40=200
Legs per team
woodlice
5 X 10=50
Legs per team


Human anatomy facts
Family Maths Toolkit
Facts about humans:
He had so much fun and Blanka was very engaged measuring everyone
I loved this math it was so much fun doing this.
familymathstoolkit.org.uk
Me Blanka – height 122cm arms – 115cm head 17cm x8 = 136cm
Mum – height 160cm arms – 154cm head – 22cm x8 = 176cm
Teddy – height – 90cm arms 32cm head – 15cm 15x8 = 120cm
Dad height – 173cm head – 22x8 = 176cm arms – 170cm

Ritika

Bug football

Family Maths Toolkit





Beetles

Spiders

Well done!

Symmetrical letters

Family Maths Toolkit

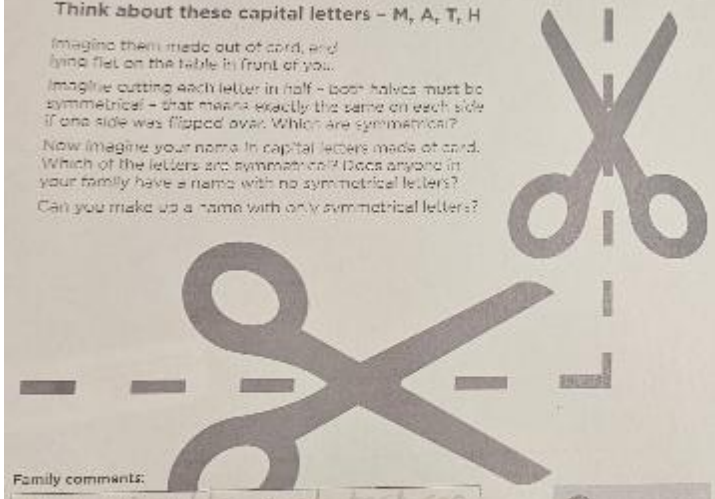
Think about these capital letters – M, A, T, H

Imagine them made out of card, and lying flat on the table in front of you.

Imagine cutting each letter in half – both halves must be symmetrical – that means exactly the same on each side if one side was flipped over. Which are symmetrical?

Now imagine your name in capital letters made of card. Which of the letters are symmetrical? Does anyone in your family have a name with no symmetrical letters?

Can you make up a name with only symmetrical letters?



Family comments:

Very enjoyable, good task for learning symmetry.

Child comments:

She is very clever !! Good.

Curriculum Link

Identify and describe symmetry.

Amazing effort! Well done! ☺

MATH

RICO

LEAH

SAM

RONNIE

ADAM

1

Planning a trip

Family Maths Toolkit

You have £100 to spend on a day out. Where would you go? Would you take any family members? How much would it cost? Could you visit more than one place?



When on a day's plan of real places to visit and how much it would cost, here is an example of a day out but you can go anywhere you like. You don't have to visit your family.

Place	Who	Cost	Total
Castle	[illegible]	[illegible] Children £2.00 each	[illegible]
Beach	[illegible]	[illegible]	£0.00
Zoo	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]

Parents' comments:

We really enjoy to do this homework. It's really a good idea for kids.

Children's comments:

It was difficult but we solved it as a family. We're so glad!

Curriculum Link

[illegible]

familymathstoolkit.org.uk

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Place	Who	Cost	Total
Bonfire	2 adults 3 children	Family ticket £30	£30
Restaurant	2 adults, 3 children	Dinner £30	£30
Ice cream shop	2 adults 3 children	ice cream £20	£20
		we save £20	£20



National Numeracy Project

Who?

Reception – Year 6 (all straight in)

How long are we going to try it for?

- Start after February half term
- We'll get feedback before Easter from parents and staff
- Trial again/ make changes for another half term and then decide next steps