13th May 2020

National Numeracy Day

Brought to you by National Numeracy

Lead supporter Pearson

An interactive guide for adults supporting children

Boosting number confidence

#NationalNumeracyDay

Introduction

This workbook has been produced by National Numeracy in partnership with Pearson.

National Numeracy is an independent charity which helps people of all ages to improve their confidence with numbers.

Pearson are a global education company and their mission is to help people make progress in their lives through learning. They believe in the power of maths and building number confidence and skills so everyone can engage with opportunities, achieve and progress throughout their lives. That's why Pearson is supporting National Numeracy Day, an annual celebration of numbers and a chance for people to start their journey in improving their numeracy skills with the National Numeracy Challenge.

Numeracy is important for people of all ages. We all use numbers every day, often without realising it. Being confident in our maths skills helps us with many challenges such as managing money, progressing in our careers or enjoying our hobbies like cooking or DIY.

As adults, feeling confident with numbers is a key step in giving the most effective support to children. This workbook is designed to help you think about your attitudes towards maths, build your confidence and give tips to help your children build positive attitudes towards maths.

#

We'd love to see how you're doing with the activities in this workbook, post on social media using:

#everydaymaths

This workbook contains the following types of activity and content:

Watch
View the video clips to learn more about the topic

Information
Helpful tips and advice about improving numeracy

Write
Respond to the activities within the workbook

Comments
Find out from others who have improved their own numeracy

Hyperlinks
Look out for this arrow to take you to more information online

Contents

1

What is meant by numeracy?

We'd love to see how you're doing with the activities in this workbook, post on social media using:

#everydaymaths

Numeracy is all about understanding how maths is used in the real world and being able to apply it to make the best possible decisions.

It's as much about thinking and reasoning as about doing sums. It means being able to:

- **Interpret data, charts and diagrams**
- **Process information**
- **Solve problems**
- **Check answers**
- **Understand and explain solutions**
- **Make decisions based on logical thinking and reasoning.**

2

Confidence with numbers

We'd love to see how you're doing with the activities in this workbook, post on social media using:

#everydaymaths

a) How do you feel about maths?

Everyone has different feelings around maths, which makes each learning journey unique. How does maths make you feel?

Imagine a situation where you need to complete a problem involving maths. This could be helping your children with their maths homework, or something in your work or daily life, like splitting a restaurant bill or working on a budget. How does this situation make you feel? What words would you use to describe your feelings?

The words that best describe how I feel about maths in this situation are:

Can you explain why you feel this way about maths? Try to summarise your reasons in the box below:

However maths makes you feel, you are not alone...

Here are some of the things people often say when asked how they feel about maths in National Numeracy workshops:

I kept thinking back to high school – I got nervous. My anxiety went through the roof. My hands are getting clammy just thinking about it! With the right support I was actually able to enjoy it and it helped my baking.

Maryam, Edinburgh

I don't mind maths too much, I prefer it to English! I have a few weak points like probability but overall I find it ok.

Sean, Leeds

Maths used to bully me. It was an intimidation thing. The numbers, they used to intimidate me, used to scare me, so I used to shy away from them. But actually when I did it and got things right I felt ten feet tall.

Jason, Castleford

When I found out about a maths requirement at work I was mortified. I felt terrified, I didn't think I would be able to do it. I learnt though that I actually could do it, so now I'm a bit more comfortable.

Jade, Brighton

I wanted to do my nurse training and I needed to pass maths. But the first thing I thought about maths was "err, no". I was nervous, scared and unsure.

Jenny, Portsmouth

I enjoy doing maths, it gives you a sense of personal challenge and achievement when you get things right.

Julia, Norwich

I am petrified of maths, panic sets in, if we're in a workshop and maths comes up I feel nervous and a big block comes down.

Jane, Blackpool

Watch this short clip to hear from other people explaining how they feel about maths:

Find more videos about people's feelings towards maths on p38

Do any of your own experiences resonate with how these other people feel about maths?

So, why do some people feel anxious about maths?
Everyone's experience is unique, but some reasons could be:

- **Negative experiences at school**
- **Poor quality teaching or lack of support**
- **Fear of failure or embarrassment**
- **Being told they aren't a maths person**
- **Focusing on the subjects they enjoy more**
- **Feeling under pressure**

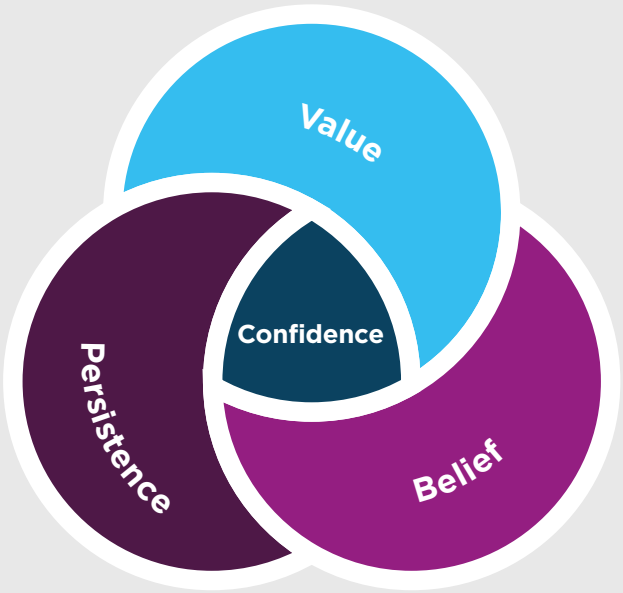
Importantly, these things are not related to someone's ability. Take a moment to think about how these things are related to a person's experiences and not to their ability.

People who feel more comfortable with maths are likely to have had different experiences, rather than being "better" at maths. There is no such thing as a "maths person"!

You can find out more about maths anxiety in Pearson's Guide to Tackling Maths Anxiety.

b) Boosting your own confidence: a useful framework

The first step to boosting your own confidence, and learning how to support positive attitudes in children, is thinking positively about maths yourself. The following framework can help:



Value
Understand the importance of maths in everyday life and the benefits of improving numeracy

Belief
Recognise that ability is not fixed and develop a 'can-do' attitude

Persistence
Recognise that everyone struggles in order to succeed – it's part of the learning process

Confidence
Understand that value, belief and persistence will give people the confidence to take steps to improve their numeracy

c) Easing your own anxieties

What can you do to make maths learning feel more comfortable? Here are a few tips to ease the anxieties you might experience.

- **Talk about the way you feel about maths**

  It is often helpful to speak about your anxieties. Talking to a supportive colleague or friend may help (but take care not to express negative thoughts about maths in front of children).

- **Reduce pressure**

  Try to learn in your own space and time. Remember everyone's journey is unique and you can work at the pace that suits you.

- **Set realistic goals**

  Be kind to yourself when setting targets.

- **Try to relax**

  Feeling physically relaxed can help with when learning – try being mindful of your breathing.

- **Challenge your own beliefs**

  Ask yourself whether your thoughts about your maths ability are justified and helpful, or are holding you back.

- **Write down your thoughts**

  This helps regulate your emotions. This workbook is a safe place to do that.

- **Some level of anxiety is OK**

  Remember some level of anxiety can be helpful – it often shows we are motivated to do the maths and get it right.

- **Try not to compare yourself to others**

  Learning is about improving from where you are, it is not a competition. You will reach your own potential in your own time.

- **Choose resources that work for you**

  Everyone learns differently so use resources that suit your learning style. On the **National Numeracy Challenge** there is a wide range of learning resources for adults and secondary school-aged children.

Want to explore tips and tools to tackle maths anxiety at any age?

"A Guide to Tackling Maths Anxiety"

Are any of these tips helpful to you in overcoming anxiety around maths? Which will you try?

Could any of the tips also be useful for children who are anxious about maths? Note down any you think are worth suggesting.

Explore more mental health and wellbeing support from Pearson

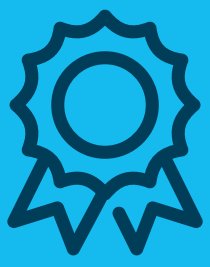
d) Tips for supporting children with maths

Many people supporting children with maths learning and homework worry that they need to be an expert to help, but this isn't true. As well as boosting your own confidence with maths, you can also positively influence children's thoughts and feelings about maths.

Our top tips for building positive attitudes in children:

Point out the maths in everyday life.
Show children that maths is all around us, including in activities like using money, cooking and travelling.

Use positive words about maths.
Avoid saying things like "I can't do maths" or "I hated maths at school".



Praise children for effort rather than talent.
This shows them that by working hard, they can always improve.

If you'd like to boost your maths skills.
Try our free online tool the National Numeracy Challenge

e) How do the children I support feel about maths?

Understanding what children think about maths is a helpful first step to finding the best way to support them. Ask them the questions below and jot down their answers:

Do you like maths at school? What about outside of school?

Why is that?

What would be your advice to young people learning maths today?

3 Value

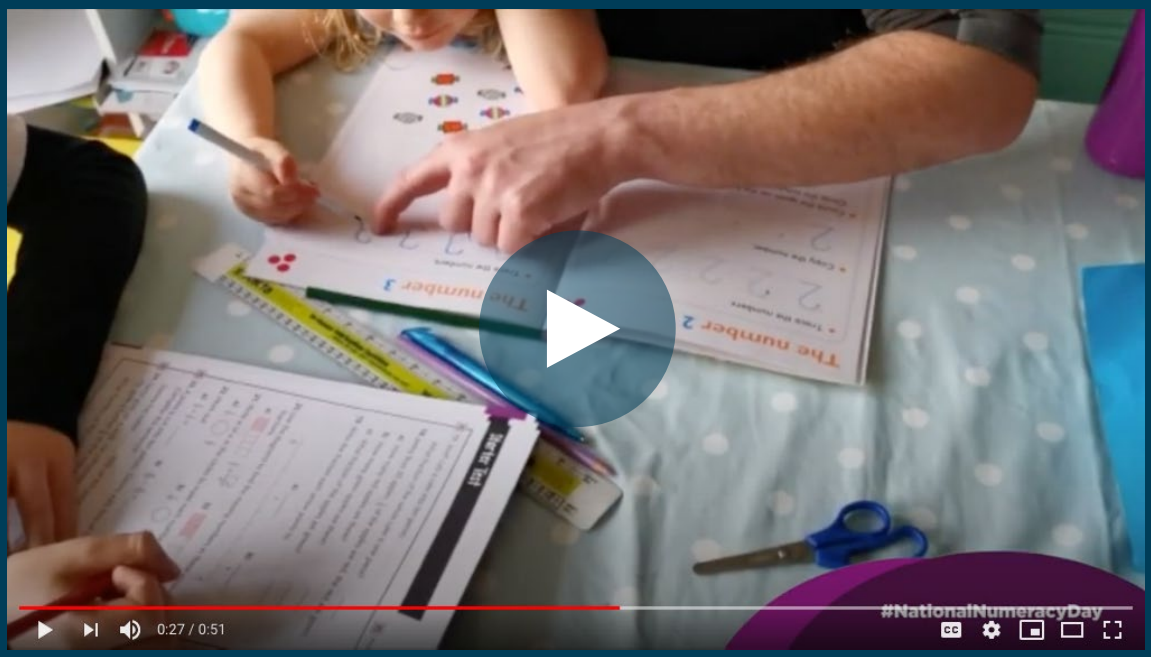
We'd love to see how you're doing with the activities in this workbook, post on social media using:

#everydaymaths

a) Does maths really matter?

We do many things in our everyday lives and work that involve maths. Often, we don't even think about the maths we are using because it seems quite different from the maths we learnt at school.

Watch these clips of how other people find maths useful.



More about the value and power of maths

Think about some tasks you do regularly at work or at home. Think of all the ways that numeracy skills are used to carry out the tasks. We have given an example of cooking a family meal.

Task	Numeracy needed to complete the task
Cooking a family meal	*1. Buying the best value ingredients at the supermarket* *2. Understanding food labels, such as calorie information* *3. Multiplying up recipe quantities for the right number of people* *4. Weighing out ingredients* *5. Converting from grams to kilograms or pounds to ounces* *6. Using timings to ensure everything is ready at the same time* *7. Using proportion to dish up the food*
Task 1:	
Task 2:	
Task 3:	

Check out a free recipe and activity from Carol Vorderman and *The Maths Factor*

"Bake like Carol!"

As well as being useful in everyday life, there are many other practical benefits to improving numeracy. Think about the benefits that are important to you and will motivate you to learn.

Improving my maths skills will help me to...

(Tick those that apply to you)

- Help the children I support ○
- Manage my money more effectively ○
- Improve my own confidence ○
- Progress in my career ○
- Feel ready to take a maths qualification ○
- Do well in study of other subjects ○
- Complete everyday activities more effectively or confidently ○
- Understand statistics in the media ○
- Succeed in hobbies e.g. DIY and baking ○
- Other (make a note here) _____

Now think about the children you support. Improving their maths skills will help them to...

(Tick those that apply)

- Build foundations for success in maths at school or in further education ○
- Build foundations for success in other subjects ○
- Improve their confidence at school ○
- Improve their general self-confidence ○
- Get a good job when they are an adult ○
- Develop other life skills (e.g. cooking) ○
- Learn about money and managing their finances ○
- Other (make a note here) _____

b) Pointing out maths in the real world to children

In order to remain engaged with maths learning throughout school, children of all ages need to see that it is relevant to them. Maths is often seen as something that 'has to be done' at school. But if children see maths in the real world, they are more likely to see its benefits.

For primary school children, even noticing the most basic use of numbers in the real world around them can help. You can support this by pointing out when you see or use maths. A fun way to do this is keeping a number diary with your child that notes where numbers are used in the day. We have provided a template to help, but they could draw pictures, take photos or keep a scrapbook.

Start your number diary:

Things I did today	Numeracy needed to complete the task
Got the bus to school	*1. Looked at the clock to see if it was time to go* *2. Read the bus timetable at the bus stop* *3. Looked out for the number on the bus to make sure we caught the right one* *4. Gave money to the bus driver* *5. Tried to work out how long the bus would take*

Continued

Things I did today	Numeracy needed to complete the task

If you support older children, you may need a different approach. If they ask "How am I going to use this in real life?", you could guide them to answer the question themselves by thinking about their goals or future ambitions.

All jobs require some maths, so you could work with them to think about the maths they would need in their dream job. All subjects involve maths to some extent too, so it is relevant to everyone who plans to go on to further study, whichever course they take.

Ask your children to write down their ideal plans and how maths will be needed. Here are a few examples to help get you started:

Future plans	Numeracy needed
Fashion Designer	*1. Ordering the right amount of stock and materials at the best prices* *2. Measuring fabrics* *3. Understanding shape and patterns such as symmetry* *4. Keeping sizes consistent* *5. Deciding appropriate sales prices*
Doctor or nurse	*1. Medication calculations* *2. Taking patient readings and measurements* *3. Understanding patient data* *4. Communicating risks of certain treatments* *5. Scheduling and time management*
Studying Geography	*1. Using statistics and data e.g. demographics and population* *2. Measuring rivers or landmarks* *3. Using scales on maps* *4. Presenting information on graphs e.g. weather patterns* *5. Understanding trends and relationships*
A business owner	

Continued

Things I did today	Numeracy needed to complete the task
Taking a course in hairdressing	
My dream job....	
My study plans....	

If you are finding this tricky, think about some of the things necessary in many jobs or study, for example, budgeting, measurements, using timetables, handling cash, managing stock, calculating expenses or using data.

c) Making everyday maths fun for children

Doing maths doesn't have to mean sitting down and filling in worksheets. It can mean bringing out the maths in the things you and the children you support enjoy doing together.

Note down some things you and the children you support enjoy doing and ways you could bring maths into those activities, to match their age and stage of learning. We've used football as an example to get you started:

Hobby/interest	Ways to bring in maths	
Football	**Primary level** • *Use the league table to work out how many points a team might need to win the league.* • *Understanding distances on the pitch.* • *Recognising shapes on the pitch such as the centre circle.* • *Understanding time using the 90-minute game-time.*	**Secondary level** • *Probability in a cup draw.* • *Looking at statistics – e.g. what do possession percentages represent.* • *Use positioning of free kicks to understand angles.*
My example 1		
My example 2		
My example 3		

4

Belief

We'd love to see how you're doing with the activities in this workbook, post on social media using:

#everydaymaths

a) What if I don't think I'm a maths person? Developing a growth mindset

The truth is anyone can improve their skills. We might all be working at different levels and speeds, but that's okay and doesn't mean someone can't improve.

Believing you were born unable to do maths because you are naturally bad at it, that your mind doesn't work the right way for numbers, or that you will never be good at maths is known as a *fixed mindset.*

Recognising that ability is not set in stone and accepting that success is the result of hard work and commitment rather than natural ability or talent is known as a *growth mindset.*

Do you and the children you support have a fixed mindset or a growth mindset?

Statement	This is something I believe about maths	This is something children I support believe about maths	Fixed or growth mindset?
I'll never get better at maths, no matter how hard I try.			
Mistakes are learning opportunities.			
My school maths results prove whether I am a maths person.			
Getting it wrong a lot proves I am bad at maths.			
The reason some people are better at maths than others is because of their learning experiences, not natural ability.			
Everyone can improve in maths by working at it.			

Thinking about your answers and any other beliefs you have about maths, would you say you have a growth mindset? If any of your beliefs are associated with fixed mindset, how could you start to think differently?

b) Tips for helping children to develop a growth mindset

Show it's normal to struggle

Often, adults do not want to show when they don't know something or find a problem difficult. However, accepting it's difficult, explaining that everyone makes mistakes in order to learn and pledging to work through it shows children that everyone struggles sometimes – it doesn't mean they can't get there in the end.

Praise effort not talent

When a child struggles, they might believe it's because they aren't clever or talented, and that it's impossible for them to succeed. By praising the effort that went in to doing well, you can encourage children that it is possible for them to succeed through hard work.

Celebrate mistakes

If we make mistakes, it means we are learning.

Encourage practice

Even though some children may feel they don't enjoy maths, or that no matter how hard they try they don't get any better, it is practice which is the key to improvement.

Ask children about what they have learnt

Showing an interest by asking about their work is useful. Asking "what have you learnt from this" reinforces the idea that working hard helps us learn.

Talk positively about maths

Learn more about this on **p28**

Thinking about these tips, is there anything more you could do to help encourage a growth mindset in the children you support?

Learn more about growth mindset with this ***handy factsheet for parents and carers*** developed by Pearson.

5 Persistence

We'd love to see how you're doing with the activities in this workbook, post on social media using:

#everydaymaths

a) Being persistent

It's important to remember that, from time to time, everyone struggles when learning new things, that it's okay to find it difficult and that making mistakes is to be expected. Being persistent means recognising the value of mistakes and continuing to work through the difficulties along the way.

We often think differently about maths to the way we that we think about our other skills and abilities. For example, here are some ways that people think about learning to drive.

When learning to drive we usually:

- Expect it to be difficult at first
- Understand that it takes different people different amounts of time to learn
- Expect to find some skills difficult and experience setbacks – for example reversing around a corner or parallel parking
- Understand that we don't have to reach the level of a Formula 1 racer, we just need to be good enough to be safe on the road
- Realise that even if we don't pass our first test, we can get more lessons, keep going and try again as many times as we need to.

Do you think of maths in a similar way, or is your mindset quite different? Use the questions below to help you reflect your thoughts.

Are you kind to yourself if it's difficult to start with?	
Are you critical of yourself if you need longer than others to learn?	
Do you accept that finding weak spots or bumps in the road are okay and part of learning?	
Do you judge your maths skills in relation to what's needed for work and everyday life, or in relation to higher level, abstract, maths skills?	
Do you judge your maths ability based on tests you might have done at school?	

There are many areas of life where people practise, learn and improve their skills over time – for example learning a musical instrument or overcoming public speaking anxiety. It might even be showing the persistence to get to the next level of a video game. If you struggled with maths at school, that doesn't mean you have to stop there; learning can happen at any stage of life.

Think about a skill you've persevered with:

What's the skill you've learned?	
Did you experience any difficulties while you've been working on this skill?	
How did you overcome these difficulties?	
Why didn't you give up? Your example here could help you think differently about your maths skills.	

b) Helping children to persevere

When children you are supporting struggle with a maths problem, it may be useful to talk with them about other things they have found difficult in the past but conquered. This will help them think of struggle as normal and encourage them to persevere and overcome challenges in maths and beyond.

Can you think of examples of things the children you support have found difficult, but were able to achieve in the end?

c) Being positive about maths around children

One of the most important things adults can do to support children to develop positive attitudes towards maths is to speak positively about it. This is not always as easy as it sounds. There are many things that we often say, without thinking too much about it, or with good intentions, that may affect the way children feel about maths.

Have you heard any of these statements about maths? Thinking about what you have learnt so far about attitudes towards maths, explain why might these be unhelpful? Match the statements to the numbered reasons – some will apply to more than one! You can also add your own ideas.

Statement	Reasons
"I was never any good at maths at school and it did me no harm"	
"It's okay, you're just more of a creative person than a maths person"	
"This is easy, you should be able to get this one right"	
"You're so clever for getting that right"	

Reasons why this can be unhelpful

1. Makes it seem like maths isn't important
2. Praises talent rather than effort
3. Implies fixed mindset
4. Makes maths seem like something that is only important in school
5. Gives the impression that mistakes are a bad thing
6. Tells someone that it's ok not to be good at maths
7. This doesn't encourage the child to keep trying if they find it hard
8. May make the child feel inadequate for not finding it easy
9. Implies that only a certain type of person can be good at maths
10. Has a negative tone

So, how can we try to talk about maths more positively?
Here are a few ideas that you could try:

I found maths hard too, but if we keep working at it we can get it.

It's ok to find it hard, but it doesn't mean you're bad at maths. Let's keep working at it.

We can all be good at maths if we keep working at it.

That was a tricky one, well done for keeping on going with it

I think we have got part of it right, let's have another go and we might get to the answer.

What other more positive things might you say to children you support about maths?

6

Myths about Maths Quiz

We'd love to see how you're doing with the activities in this workbook, post on social media using:

#everydaymaths

Have a go at our short quiz on some of the myths about maths.

For each question, look at the three statements. Two of them are myths, one of them is true. Identify which you think is true and make a brief note of why you think this way.

You can find the answers here

1

a) Maths is only important while you're at school.
b) Lots of jobs don't involve maths.
c) Everyone uses maths every day, often without thinking about it.

Which one do you think is true and why?

2

a) Some people have a "maths brain", others do not.
b) Being good at maths isn't something you inherit.
c) If you are good with words, you are unlikely to be good with numbers.

Which one do you think is true and why?

3 **a)** It's always best to work out maths problems in your head.
b) We still need maths even if we have calculators.
c) Technology means we don't need maths anymore.

Which one do you think is true and why?

4 **a)** It's normal to make mistakes in maths, and these are learning opportunities.
b) Getting things wrong means you're bad at maths.
c) It's always important to be right the first time.

Which one do you think is true and why?

5 **a)** Men are usually better at maths than women.
b) Practising more helps you improve.
c) People who are creative can't be as good at maths.

Which one do you think is true and why?

6 **a)** If I've found maths hard so far, it's unlikely I will be able to improve.
b) Struggling with maths is something I should be ashamed of.
c) Everyone can improve their maths skills with effort.

Which one do you think is true and why?

7

Practical next steps

We'd love to see how you're doing with the activities in this workbook, post on social media using:

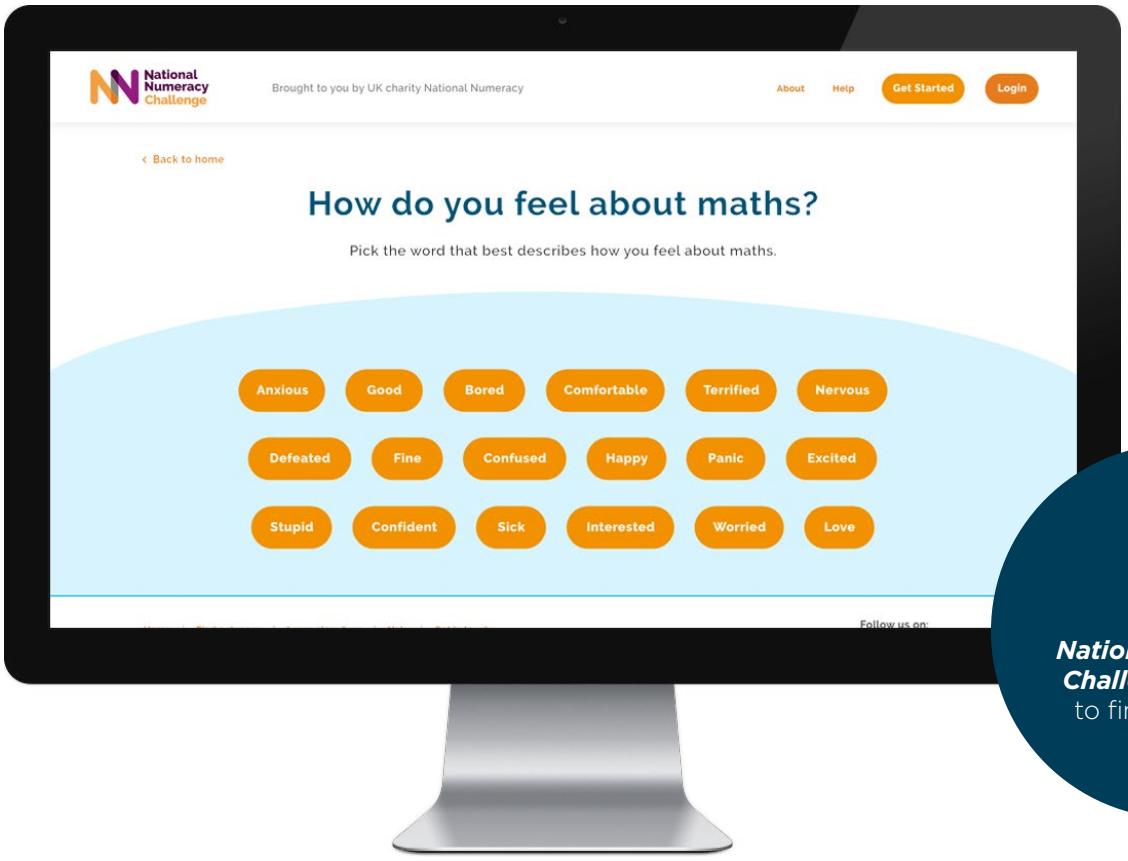
#everydaymaths

a) Boosting your own skills and confidence online

There are plenty of ways that adults can boost their skills without having to take a maths qualification or go to a classroom.

At National Numeracy we have a unique, free online resource, **The National Numeracy Challenge** designed to help adults boost their number skills from home in their own space and time.

This helps people to effectively support their children, because having the basic skills yourself will help you feel more confident helping children with their maths.



Visit the ***National Numeracy Challenge*** website to find out more.

You can register here. All you need is an email address and to create a password. As you register, you will be asked a couple of questions about your confidence which will help give you the best support possible.

After creating your profile, you will then be directed to a quick check of your skills. This is not a test: it just helps us find the most appropriate learning for you.

Visit the ***National Numeracy Challenge*** website to find out more.

- The quick check focuses on everyday maths.
- The questions are multiple choice with an option for 'I don't know.'
- It has no time limits.
- It usually takes up to 10 minutes to complete.
- You can log in and out as you go and progress is saved.
- It adapts to your level.

You are then taken to your new 'home screen', where you can access online learning resources based on your skills check result.

- You can look at the questions you got wrong and are directed towards resources to help you learn the skills needed to answer correctly.
- The resources offered will match the level you are working towards, to be challenging but not overwhelming
- There are many choices of learning resources; you can choose the ones that best match your learning style.

Improving your skills and confidence using the National Numeracy Challenge can be a good stepping stone for further opportunities, such as taking a Functional Skills qualification. See **p37** for more details

b) More ideas for activities with children

National Numeracy's Family Maths Toolkit is designed to help families do maths together. It's full of tips and fun ways to bring maths into your daily activity.

Family Maths Toolkit

Have a look at the website and think about the ideas you could start using. Make a list below of any activities you'd like to try

Visit the ***Family Maths Toolkit*** website to find out more.

Tips from Pearson

- Play 'rock, paper, scissors' but instead hold up a number of fingers. First person to shout out the total number wins.
- Make a 'shop' with children's toys, each with a price on. Use real coins to pay the correct prices.
- Hunt for shapes around the house and take pictures on your phone to check you've found them all.
- Practise number bonds with 10 grapes. Hide some of the grapes under a bowl. Children can use their number bonds to 10 to say how many grapes are hiding.
- Use songs to help making learn times tables fun. Times tables help with fractions and much more.

And keep growth mindset in mind – everyone can do maths!

c) My Action Plan for improving my maths and helping the children I support

We hope that you have found this workbook useful in thinking about your own maths skills and how you can help the children you support even more effectively. To finish, think about how you can plan to take your learning forward in future.

I intend to think differently about maths by...

I plan to improve my skills and confidence by...

My goals are...

I will change the way I talk about maths to the children I support by...

I will bring maths into the children's everyday life by...

Use this space to take note of any other thoughts you have while completing the workbook

We'd love to see how you're doing with the activities in this workbook, post on social media using:

#everydaymaths

8

Useful links and further reading

From National Numeracy

For yourself:

- The National Numeracy Challenge
- More information about getting involved with the National Numeracy Day campaign on the National Numeracy Day website
- More information about numeracy on the National Numeracy website
- Read about other people who struggled with maths, but succeeded in improving their skills in the National Numeracy case study bank

For you and your children:

- National Numeracy's Family Maths Toolkit
- Free family maths activities from National Numeracy
- More family maths activities to buy

From Pearson

We want everyone to believe they can 'do' maths. That's why we're actively advocating the #PowerofMaths for everyone. Find out more about the **#PowerofMaths campaign**.

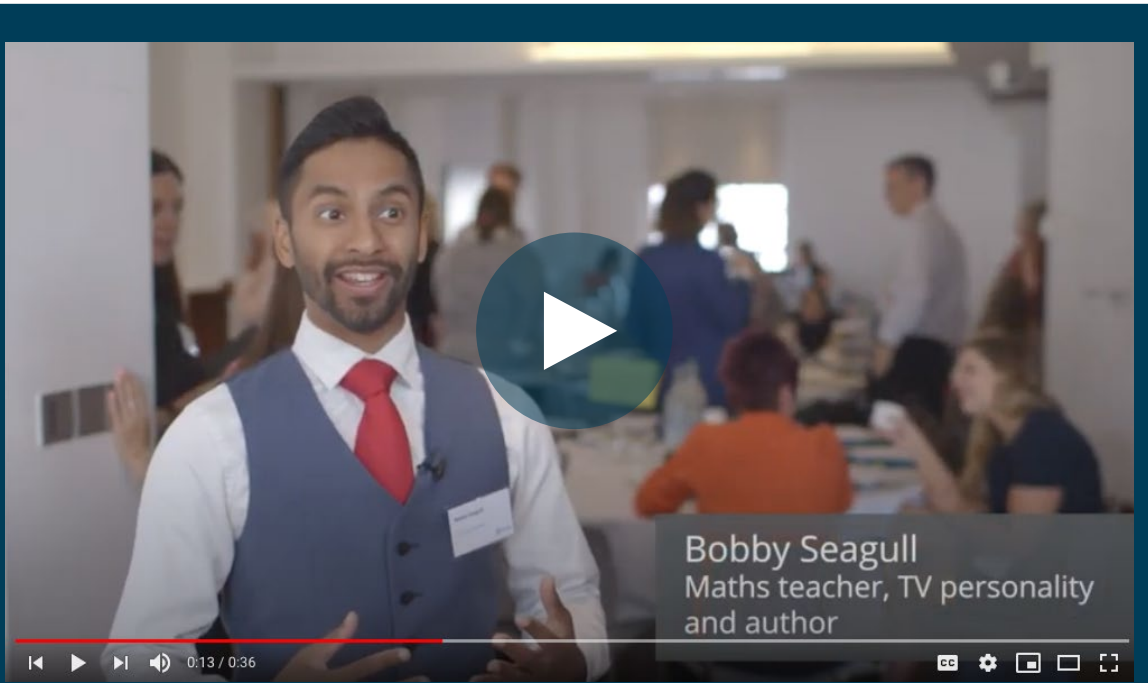
Boosting maths skills and confidence for all ages and stages of learning

- **Explore what Pearson maths has to offer**, from books, apps and programmes like *The Maths Factor* to qualifications such as Functional Skills, GCSEs and A levels in Mathematics
- **Collection of maths resources from beyond Pearson**, including teaching and learning support, just-for-fun ideas, trips and videos and maths advocates
- **Guide to Tackling Maths Anxiety** and **Videos about the #PowerofMaths and Maths Anxiety**
- Growth mindset: **Factsheet for Parents and Carers; Handy Little Guide to Growth Mindset**
- **Mental health and wellbeing support for children, young people and adults** – this includes helpful resources, advice from charities, and mindfulness webinars
- **Pearson Maths Blog** with articles from our team, maths teachers and more

How do you feel about maths: further videos

What is your perception of maths anxiety?

Bobby Seagull on his journey with maths



Myths about maths quiz answers

Question 1:

Correct statement: **c) "Everyone uses maths every day, often without thinking about it."** There are many examples from the real world of things that everyone does that involve maths, such as planning journeys. Refer back to examples from the previous activity.

Myths: Maths is only important while you are at school and lots of jobs won't involve maths. It is impossible to think of a career path which involves no maths at all and we need it to navigate everyday life. Sometimes the maths needed is quite simple, but we need to be able to apply these skills to complex life situations.

Question 2

Correct statement: **b) "Being good at maths isn't something you inherit."** There is very little scientific evidence to back up the idea of there being a "maths gene" – most of our abilities are affected by environmental factors – for example the amount of practise we do, the support available and our attitudes towards maths.

Myths: Some people are maths people, others are not is only true if a "maths person" is interpreted to mean somebody who enjoys maths.It's true that people reach adulthood with varying levels of ability, but this is not because they were born with or without the ability to do maths. The true reasons for people's differing abilities are environmental. Similarly, the idea that if you are good with words, you are unlikely to be good with numbers is not supported by evidence. It is possible to learn both skills with practice; they are not mutually exclusive.

Question 3

Correct statement: **b) "We still need maths even if we have calculators."** because we still need to know what to put in to the calculator to solve the problem we have. We also use estimation skills to ensure that we have a reasonable answer.

Myths: It's always best to work out maths problems in your head is not true in the real world. When thinking about using maths in our everyday lives, using technology or a pen and paper to help is ok, as long as we are confident we can find the answer. Importantly, using a calculator to help doesn't make a person bad at maths. Technology means we don't need maths any more is a myth for the same reasons given for the correct statement.

Question 4

Correct statement: **a) "It's normal to make mistakes in maths, and these are learning opportunities."** This is a commonly held view for other skills, but often people think that if they get things wrong in maths, they are simply not good at it or stupid. Maths can be thought of in the same way as other skills, such as learning to drive: you expect to have difficulties and get things wrong!

Myths: Getting things wrong means you're bad at maths and it's always important to be right the first time are the opposite sentiments to those explained above.

Question 5

Correct statement: **b) "Practising more helps you improve at maths."** As maths ability does not occur naturally, we all need to learn the skills. This may take different amounts of time for different people, but the more we do something, the more able we become.

Myths: Men are usually better at maths than women is not true. People of all genders are equally able to learn maths skills. People who are creative are unlikely to be good at maths is also untrue. This segmentation of skills is unhelpful. Again, anyone has the ability to learn a whole range of skills including maths, and this has nothing to do with a natural ability or a person's brain being "wired" in a particular way.

Question 6

Correct statement: **c) "Everyone can improve their maths skills with effort."** This has been mentioned before in the workshop but should be reiterated here as it is the most important takeaway message. With motivation, growth mindset and persistence anyone can improve, even if some people find it harder than others.

Myths: If I've found maths hard so far, it's unlikely I will be able to improve is a belief associated with a fixed mindset. Even if everyone has different levels now, there is no reason why they cannot make progress from that level. Struggling with maths is something I should be ashamed of is also not true – many people struggle with numbers and it should not be embarrassing. Acknowledging it is the first step to learning and improving.

National Numeracy Day

National Numeracy Day is a celebration of numbers and how we use them in everyday life.

It brings together individuals, employers, educators and supporters from across the UK to show the importance of numbers and the benefits of using them more effectively.

National Numeracy Day recognises that being better with numbers isn't a special talent, it's something we can all learn.

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As a global education company our mission is to help people make progress in their lives through learning, and we're thrilled to support National Numeracy Day. We believe in the power of maths and building number confidence and skills so everyone can engage with opportunities, achieve and progress throughout their lives.

We offer maths support and resources for every age and stage of learning: from textbooks and online materials right through to qualifications.

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