



# What is Numeracy?

Across the UK

roughly 4 in 5 adults have a  
low level of numeracy



**Numeracy is the ability to use mathematics in everyday life.**

Being numerate means having the confidence and skill to use numbers and mathematical approaches in all aspects of life - at work, in practical everyday activities at home and beyond, as consumers, in managing our finances, as parents helping our children learn, as patients making sense of health information, as citizens understanding the world about us.

Numeracy complements literacy and is sometimes called 'mathematical literacy'. Both skills are needed in order to function fully in modern life.



## Numeracy - activity



<http://happysoft.org.uk/countdown/numgame.php>

## Numeracy Magic

- Think of a number
- Double it
- Add 10
- Halve it
- Take away your original number



**Numeracy Magic**

**Is 5 your answer?**



Netherthorpe School  
Learn Enjoy Succeed

# Parents Perceptions of Maths



Parental involvement has a large and positive impact on children's learning  
*Review of Best Practice in Parental Engagement" (Department for Education, 2010*

## Be positive about Maths

A parent's perception of mathematics influences not only their child's feelings about maths but also their child's achievement in mathematics.

'I could never do maths'

'I hated maths at school'

'When will I use maths again?'

'Maths is not for me'



A good understanding of everyday maths will help your child with important tasks, such as making decisions and understanding information. It will also help them develop essential **lifelong skills** such as:

- Splitting the bill after a meal out with friends and working out what tip to leave
- Converting currency rates when abroad
- Managing personal finances, budgeting and saving
- Getting to work on time, estimating how long a journey will take, knowing when to fill up on fuel
- Planning an outing for the family, packing a lunchbox or suitcase
- Knowing if the answer on the calculator is reasonable, or if you pressed the wrong button
- Reading data presented in a variety of forms, such as graphs and tables, scales on a thermometer or weighing scales, and interpreting statistics in the news
- Working out the odds in sporting events, keeping score in games, knowing what to aim for in order to win
- DIY jobs such as painting and decorating, or working out how many walls tiles are needed to cover an area.

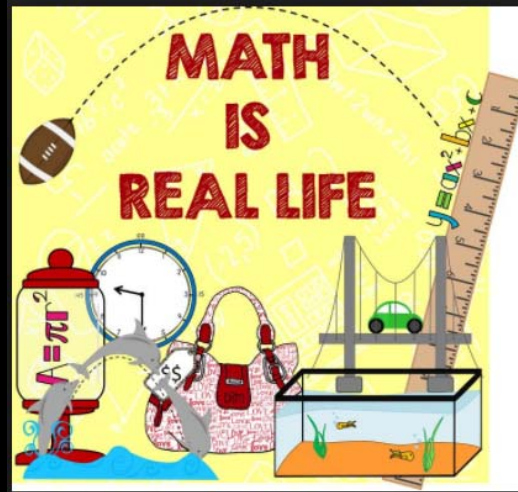


# Make numeracy relevant to real life

## Shopping



- BOGOF offers
- %'s off
- Best Value



## Cooking



- Recipes - proportions
- Weighing ingredients
- Changing units of measurement







## Card Games

- I spy with my little eye
- First to add it up
- Fast facts
- Card bingo
- Counting on card game
- Place value cards



## Darts



[www.transum.org/Maths/Game/Darts](http://www.transum.org/Maths/Game/Darts)

Throw three darts, you then have to add up your scores, type in the total then subtract that total from your score.



*The creativity and logical thinking skills you develop in maths are important in our rapidly changing world.*



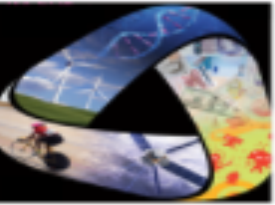
**SEE THE MATHS IN MUSIC**



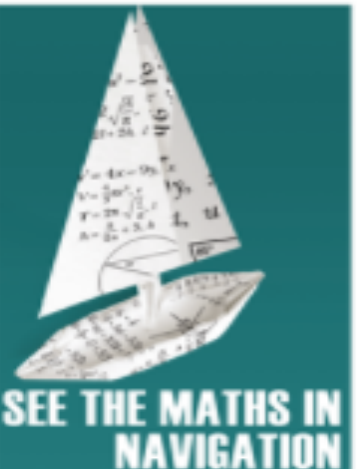
**SEE THE MATHS IN AEROSPACE**



**MATHS**



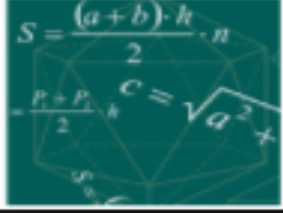
**SEE**



**SEE THE MATHS IN NAVIGATION**



**SEE THE MATHS IN NATURE**



**WHERE**

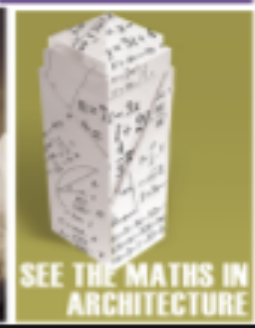
**IT**

**CAN TAKE**

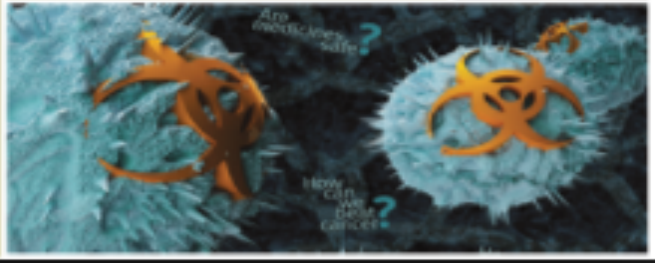
**YOU**



**SEE THE MATHS IN SPORT**



**SEE THE MATHS IN ARCHITECTURE**



To save people, a search and rescue pilot must master bearings and their **COORDINATE GEOMETRY**



**Pilot**



## Fashion Designer

Designers use principles of **SYMMETRY** and **GEOMETRICAL PATTERNS** to create gorgeous dresses



4 overs to go, 40 runs needed. What is the average number of runs needed per over? Even world class cricketers need to know their **STATISTICS!**



**Cricketer**



## Where will Maths take you?

### Hedge Fund Manager

To make millions on the stock market, Hedge fund managers must master **PROBABILITY...** Or be very lucky



**Spy**

To send secret messages, a spy uses **PRIME NUMBERS** to encrypt their message

### Composer

The 12 note scale used in western music today originated with Pythagoras, who created a musical system based on the **RATIO 3/2**



# Where can maths take you?

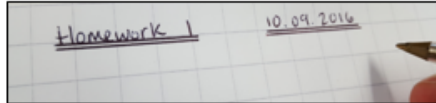
- Accountant
- Architect
- Construction
- Engineering
- Insurance
- IT & Computing



### Netherthorpe School - Guidance for maths homework

You should complete your homework in your maths exercise book. Your teacher should let you know which homework to complete, and when it should be completed by.

You should begin every homework by writing the title of the homework, and the date you complete it.



You should always set your work out neatly, writing the question, working out, and your final answer.

#### Example

1) Work out:  $17 - 3 \times 4 + 8$

$$\begin{aligned} 1) & 17 - 3 \times 4 + 8 \\ & = 17 - 12 + 8 \\ & = 5 + 8 \\ & = 13 \end{aligned}$$

For longer questions, you do not need to copy every word, but you should still write down any important values or information from the question.

#### Example

8) A train is travelling at an average speed of 56mph. How long will it take to complete a journey of 252 miles?

Give your answer in hours and minutes.

$$\begin{aligned} 8) & \text{Average speed } 56\text{mph} \\ & \text{Distance } 252 \text{ miles} \\ & \text{Time} = \text{Distance} \div \text{Speed} \\ & = 252 \div 56 \\ & = 4.5 \text{ hours} \\ & = \underline{4 \text{ hours } 30 \text{ minutes}} \end{aligned}$$

You should always write down your working out, even if you are answering questions using a calculator. This is important so that your teacher knows how you answered the question, and can help you to improve if you make a mistake.

You may find some questions harder than others, but you should always try your best to answer every question. If your teacher does not think you have done your best, they may ask you to re-do your homework.

If you have any questions about your homework, ask your teacher as soon as possible.

# Mathematics Homework

## Year 7 Homework 1 (Non-Calculator)

1	A film starts at 19:50 and last for 2 hours and 15 minutes. What time will the film end?	9	Write down a common factor of 36 and 24.
2	A roast chicken needs to cook for 1 hour and 50 minutes. I want it to be ready at 7.30pm. What time should I start cooking the chicken?	10	Write down a multiple of 8 that is greater than 100.
3	Coffee costs £2 and tea costs £1.50. How much will 5 coffees and 4 teas cost?	11	What is 20% of £160?
4	Work out $17 \times 36$	12	Sally scores 41 out of 50 on a maths test. Write this score as a percentage.
5	Work out $112 \div 7$	13	How many millimetres are equal to 36 centimetres?
6	A coach can carry 52 passengers. How many passengers can 8 coaches carry?	14	How many metres are equal to 2.5 kilometres?
7	A van can hold 24 boxes at once. How many trips must the van make to move 288 boxes?	15	A square has an area of $64\text{cm}^2$ . What is the length of one side of the square?
8	I think of a number. I double it and add 4. My answer is 30. What number did I start with?	16	A rectangle has a perimeter of 24cm. The length of the rectangle is 2cm greater than the width. What is the length and width of the rectangle?

- Synoptic homework booklets
- Given once a week
- Students need to reflect on homework in green pen
- Extension tasks given





**1 Be involved**  
 Student success in school has been shown to increase if their parents are positively involved in their education.

**2 Encourage a growth mindset**  
 Studies have shown that effort trumps ability when it comes to learning math, so set high expectations when encouraging your child.

**3 Be positive about math**  
 A parent's perception of mathematics influences not only their child's feelings about math but also their child's achievement in mathematics.

**4 Overcome gender stereotypes**  
 Foster math confidence regardless of the gender of your child by highlighting achievements made by both male and female scientists.

**5 Learn the basics**  
 Rote learning is essential to mathematics performance as many higher level concepts build on the memorization and repetition of the basic math facts.

**6 Allow mistakes**  
 Focus on the concepts rather than the right answer, since making (and correcting) mistakes is an essential part of math learning.

**7 Take baby steps**  
 Support new topics by slowly building from the topics your child already understands. Use gradual, repeated success to build math confidence in your child.

**8 Make math relevant to real life**  
 Highlight ways in which you and your family use math in everyday life and discuss how good math skills will open the doors to a larger choice of career options.

3 + 4 = 4



# Apps and websites for Maths

## Times tables

- 10 monkeys



- Times table quiz

## Websites

- [www.bbc.co.uk/education](http://www.bbc.co.uk/education)
- [www.nrich.maths.org](http://www.nrich.maths.org)
- [www.transum.org](http://www.transum.org)
- [www.topmarks.co.uk/maths-games/11-14-year](http://www.topmarks.co.uk/maths-games/11-14-year)

