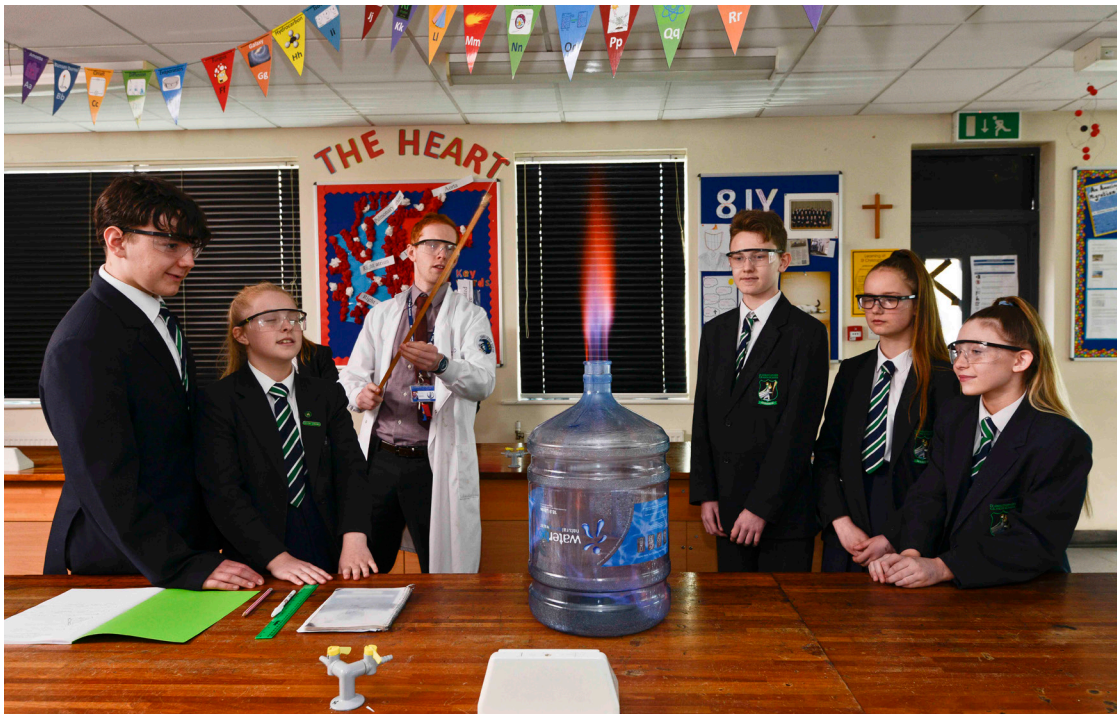
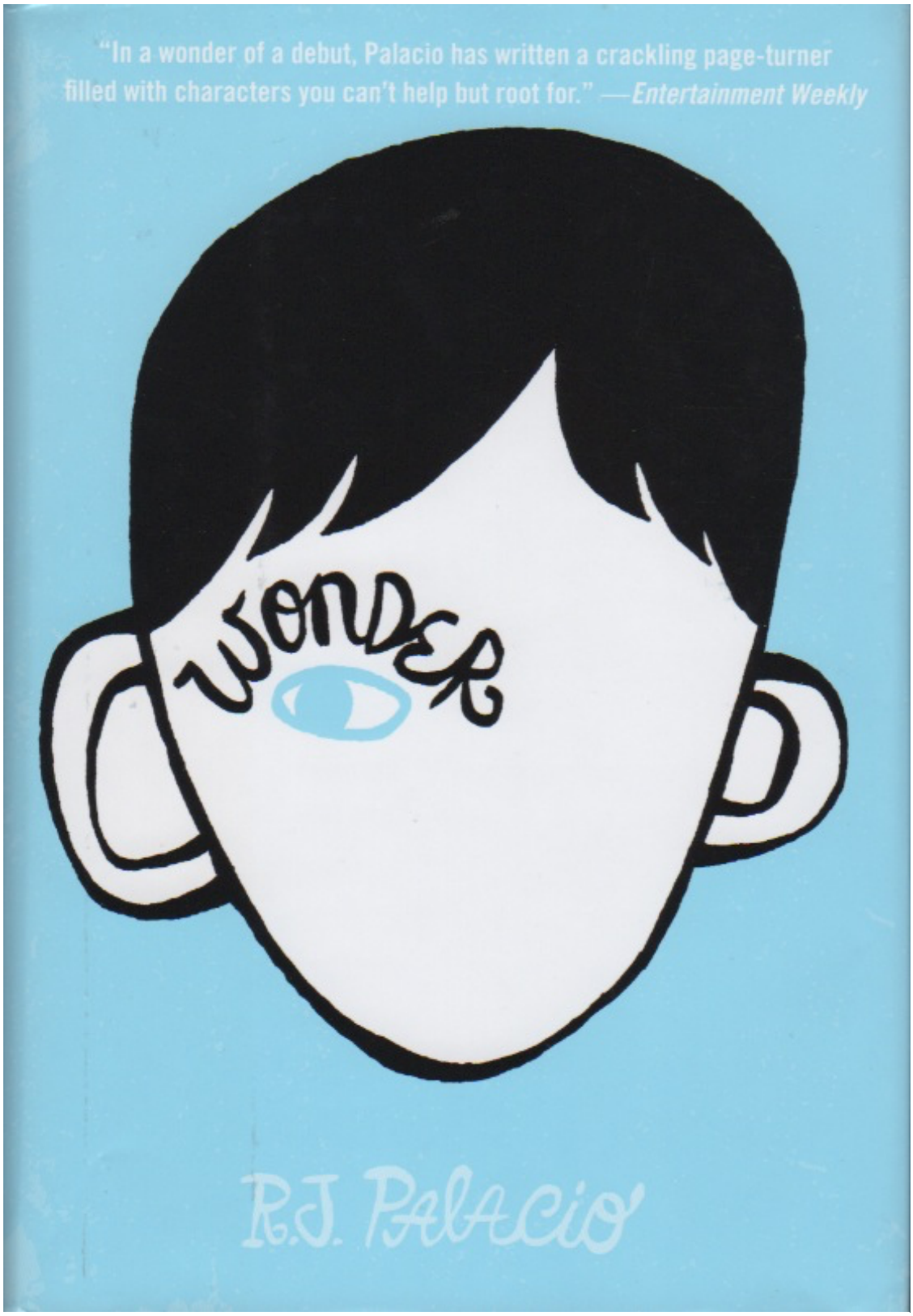
ST CHRISTOPHER'S
A CHURCH OF ENGLAND ACADEMY

GETTING READY FOR ST CHRISTOPHER'S

A set of activities from our core subjects to help you to prepare for joining us in September.



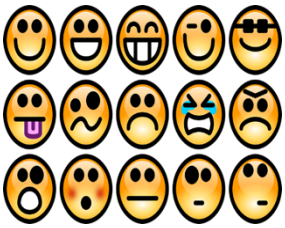
Try your best and bring this pack to school on the first day



Your name: .....

Your school: .....

FEELINGS



At different points in *Wonder,* how do you think these characters feel?

August, at the beginning of the story

August feels_____

_____

This is clear from the quotation:

_____

Olivia, when she takes the role of female lead

Olivia feels_____

_____

This is clear from the quotation:

_____

August at the end of the story

August feels_____

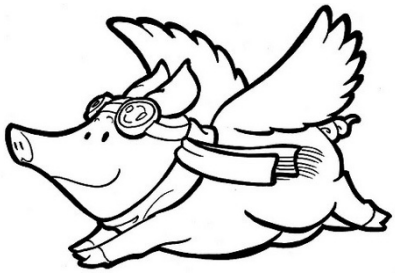
_____

This is clear from the quotation:

_____

FIGURATIVE LANGUAGE

Hi! I'm Paul, the Flying Pig! I'm an example of figurative language: language that should not be taken literally. Analyse these examples of figurative language from your story!



Example 1

The quotation…
"It's not funny in the way a joke is funny, but when Mom tells it, Via and I just start cracking up."

The writer is trying to show that…	The image that this creates in the reader's head looks like…

Example 2

The quotation…
"If we bump into each other on the street, they're still nice to me, though."

The writer is trying to show that…	The image that this creates in the reader's head looks like…

Research

Research *Treacher-Collins syndrome*, which is the condition suffered by the main narrator of *Wonder*.

Collect five facts: how it affects people; how common it is; symptoms etc…

1. .....

2. .....

3. .....

4. .....

5. .....

Hot Seating

Write down **three open questions** you would like to ask any of August's guides (Charlotte, Julian and Jack) about their first impressions of August.

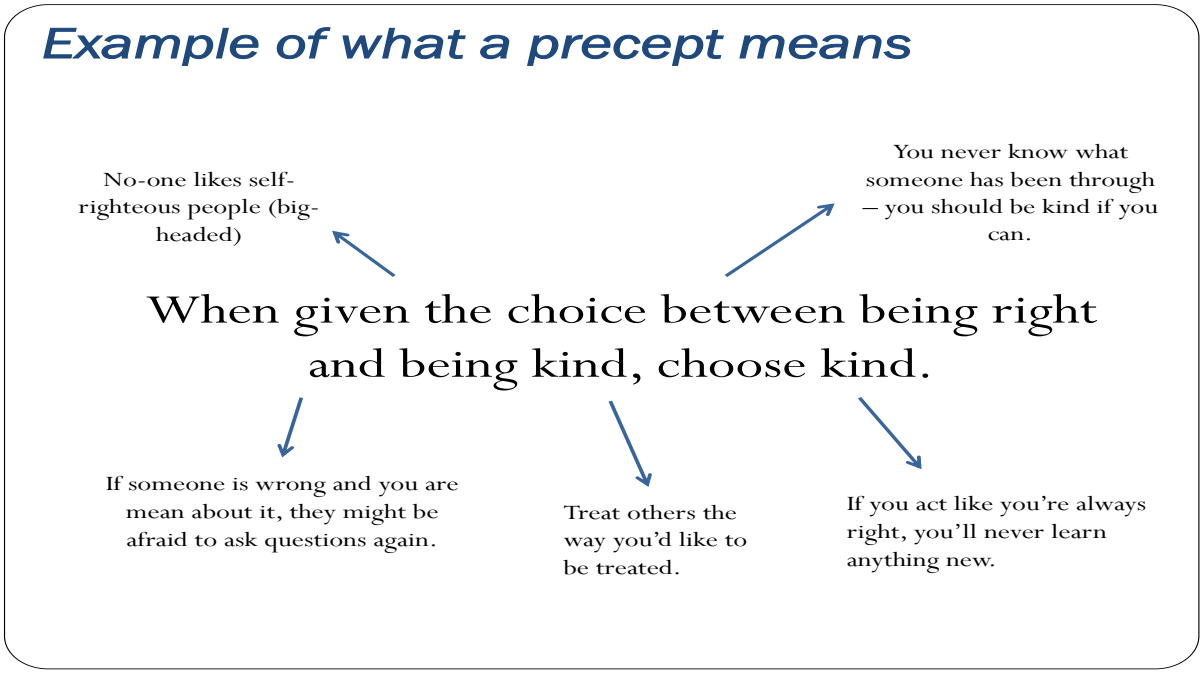
1. .....

2. .....

3. .....

Precepts

A precept is a motto or a rule by which to live.



A precept from Mr Browne is: "your deeds are your monuments". What do you think this means? Do you agree?

.....

.....

.....

Examples of Precepts: Rules by which to live:

- If you can't say anything nice, don't say anything at all.
- Kind words do not cost much, yet they accomplish much.
- Keep calm and carry on.
- All you need is love.

Choose your own precept and explain why you have chosen it. It can be a song lyric, quotation from a novel, a famous saying or something personal between your friends and family.

Design a costume

Auggie was going to be Boba Fett.

At the last minute, he changed to a bleeding Scream costume.

Julian is going to be Jango Fett.

Jack said he was going to be a wolfman.

Halloween Costumes

Designing a costume

Create a costume for one of the major characters. Add labels and colour when completed. Explain why you chose the costume, for example, how does it relate to the character; what are you trying to reflect about their personality and behaviour?

Character

Imagine you found one of the main character's phone on the floor. What music do you think you would find on it?

1. .....

2. .....

3. .....

4. .....

5. .....

6. .....

Book Review

Write a review of the book. The audience of your review will be young people. The purpose of your review will be to inform.

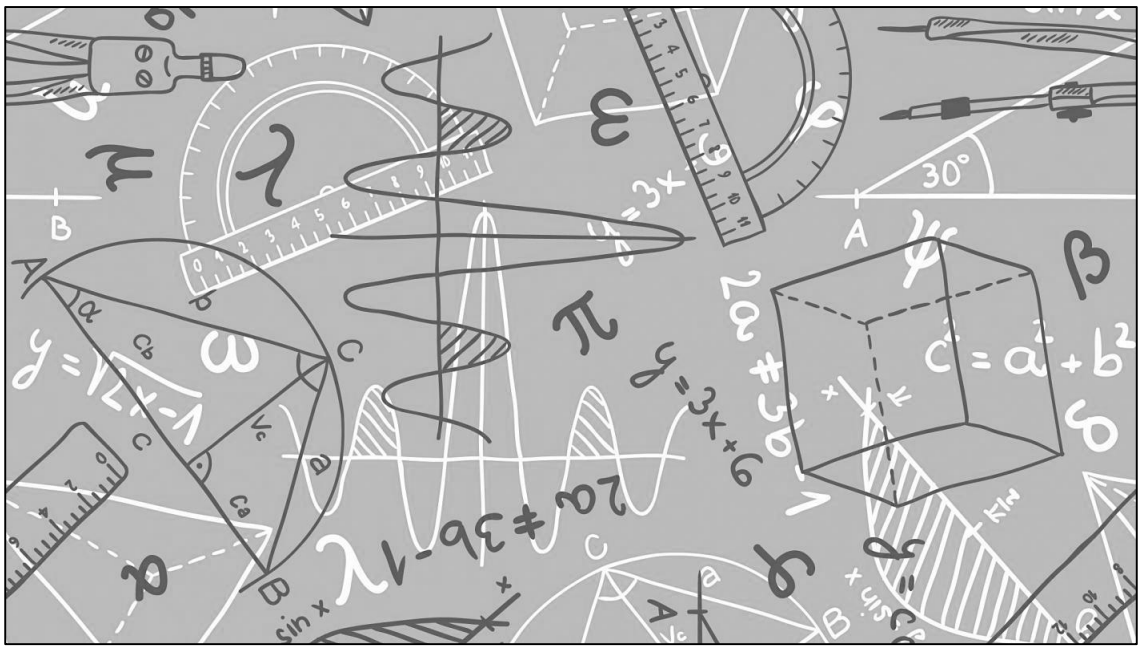
Structure of the review:

- Introduce the book (name, author etc).
- Briefly explain the plot (do not state what is the ending).
- Give your opinion of the book (what you like and what you think could be improved).
- Rate the book out of five stars.

St Christopher's CE High School

Maths Transition Workbook

Name:…….. Primary School:……



We can't wait to meet you…

All the Maths teachers at St Christopher's CE High School are very much looking forward to meeting you and normally during transition weeks you find out about us, we find out about you and together we do some Maths. Unfortunately due to the current Covid situation we cannot meet in person but by completing this booklet and practising some maths which you should already know, you will be able to find out some things about the Maths teachers at St Christopher's and do some research into some of our favourite mathematicians.

Included in this booklet are different tasks for each week of the summer holidays. Each week contains a key skills check, different puzzles and in some weeks there are facts about some famous mathematicians.

The answers will be released on the website towards the end of the summer holidays.

Meet the department...

In the Maths department we have 10 Maths Teachers. Throughout this booklet you will find out about some of our favourite Maths related things. Come back to this page to fill those in, can you find them all?

MR CHESHIRE
ASSISTANT HEADTEACHER

Favourite Number:

Favourite Mathematician:

MISS KELLY
HEAD OF MATHEMATICS
Y8 FORM TUTOR

Favourite Number:

Favourite Mathematician:

MR DICKINSON
SECOND IN MATHEMATICS
Y10 FORM TUTOR

Favourite Number:

Favourite Mathematician:

MISS HARRISON
TEACHER OF MATHEMATICS
Y7 FORM TUTOR

Favourite Number:

Favourite Mathematician:

MR STRATTON
TEACHER OF MATHEMATICS
Y11 FORM TUTOR

Favourite Number:

Favourite Mathematician:

MR MCMANUS
TEACHER OF MATHEMATICS
Y7 FORM TUTOR

Favourite Number:

Favourite Mathematician:

MISS MORGAN
TEACHER OF MATHEMATICS
Y7 FORM TUTOR

Favourite Number:

Favourite Mathematician:

MISS PATCHETT
TEACHER OF MATHEMATICS
Y11 FORM TUTOR

Favourite Number:

Favourite Mathematician:

MRS PROCTER
TEACHER OF MATHEMATICS
Y13 FORM TUTOR

Favourite Number:

Favourite Mathematician:

MRS WHISTLECROFT
TEACHER OF MATHEMATICS

Favourite Number:

Favourite Mathematician:

The 24 game...

Week 1

One of our favourite things to do on transition is to play the 24 game. The aim of the game is to be the first person to make the number 24.

For each game you have 4 numbers, you have to use **ALL** four numbers, you can add, subtract, multiply or divide these to make 24.

Example:

2 2 6 8

To make 24, I can do (8 - 2) x (6 – 2)

8 -2 = 6

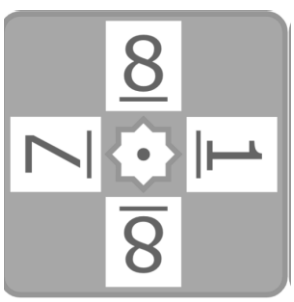
6 -2 = 4

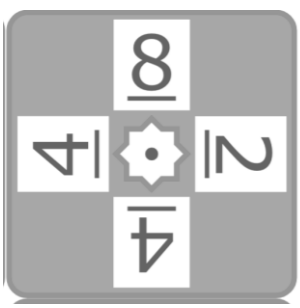
6 x 4 = 24

Now it's your turn, the 24 cards are below they get harder as you go through.

Try this with your family – who is the quickest?

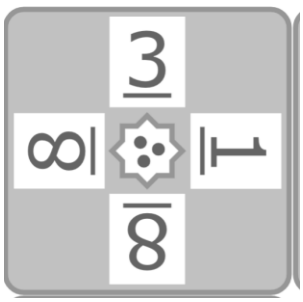
ONE DOT - EASIEST





TWO DOT - MEDIUM

THREE DOT - HARDER



Mr Cheshire's favourite number is the square root of 25

Key Skills...

When you get to a page like this, spend 10 minutes completing the skills check questions based on topics from Y6.

Question 1 Write in figures : thirteen thousand, five hundred and two units	**Question 2** Write in figures : seventy seven thousand, eight tens and three units	**Question 3** List the factors of 51	**Question 4** List the factors of 36
Question 5 Work out 7 × 10 =	**Question 6** Work out 10 × 10 =	**Question 7** Simplify $\frac{8}{16}$	**Question 8** Simplify $\frac{12}{42}$
Question 9 Find 50% of £180	**Question 10** Find 25% of £120	**Question 11** Round 2084 to the nearest 100	**Question 12** Round 3372 to the nearest 10
Question 13 Work out 86 × 8 =	**Question 14** Work out 630 × 9 =	**Question 15** Simplify 5c + 5c + 6c	**Question 16** Simplify 10a + 2b + 8a + 7b
Question 17 Work out 39253 + 15736 =	**Question 18** Work out 30730 + 18364 =	**Question 19** Work out 8 × 2 - 5	**Question 20** Work out 6 + 11 × 3

SKILLS CHECK

Score

www.mathsbox.org.uk

Mrs Whistlecroft and Mrs Procter's favourite Mathematician is Fibonacci who was an Italian man who studied math and theories back in the 11th century. He discovered a pattern called the Fibonacci sequence. It's a series of numbers that starts with 0 and 1, and each number after is found by adding the two previous numbers (0, 1, 1, 2, 3, 5…)The sequence just keeps going on and on.

Can you find the first 15 numbers in the sequence?

Week 2 Maths Keywords...

Can you find all the keywords you will need for your first half term at St Christopher's?

Y R Y A P F F T Z P M M D Q U M Z L N U
F I J X F U D M E E B U D O N D I M X E
B D P J B K C D B R U F I H I B Y V W J
C K H U T U G Z I I Z M D L T V F S F S
Y P I Z P L N M G M I Q A W S Y V D R Q
H X A T M Y K O P E L S Q W R E P E W K
C O D K Q I A Q D T C T E E S M H R U T
P L A C E V A L U E G Q B T D Z D D M J
J V B S H U K I N R S M D D A T M N K N
Z T R K F S L D L P U C M M N M O U G M
W O O Z D A I P C N R Q E X Z P I H J M
E M N T M N V Y E C C C Q N A R J T Q N
U K E I G T V R C F R N B H D Q H Z S X
P N C X A U A L G N S L B W V I D I D E
S E T F O U K L W Q C T I R Q N N P N E
D Z J D Q P T C A R T B U S O R K G B F
F V N S N I T G B P K G L R W U D J R V
O F V S G P O L Y G O N Q I X R N R O L
O U J V F K T B N Q V Z U D U V A D K O
E L E F T K D W E F Y A C L J T J N R L

ADD
ASCENDING
DECIMAL
DESCENDING
ESTIMATE
HUNDREDS
PERIMETER
PLACEVALUE
POLYGON
ROUND
SQUARENUMBER
SUBTRACT
TENS
UNITS

Miss Harrison's favourite mathematician Leonhard **Euler** (pronounced Oiler) (April 15, 1707 – September 7, 1783) was a Swiss mathematician and physicist. He spent most of his life in Russia and Germany. **Euler** made important discoveries in fields like calculus and topology. He also made many of the words used in maths today.

Key Skills...

Mrs Procter's favourite number is the product of 17 and 3.

When you get to a page like this, spend 10 minutes completing the skills check questions based on topics from Y6.

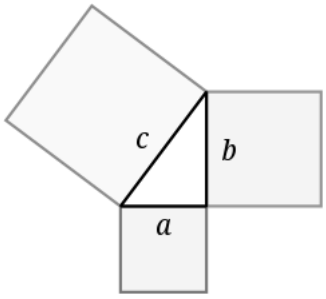
Name :

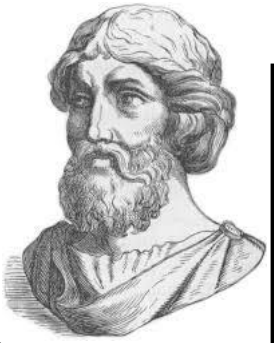
61.2

Question 1 Write in figures : six thousand, four tens and six units	**Question 2** Write in figures : One hundred and twenty six thousand, nine tens and three units	**Question 3** List the factors of 30	**Question 4** List the factors of 20
Question 5 Work out 306 × 1000 =	**Question 6** Work out 34 × 1000 =	**Question 7** Simplify $\frac{20}{70}$	**Question 8** Simplify $\frac{18}{63}$
Question 9 Find 75% of £720	**Question 10** Find 75% of £500	**Question 11** Round 6199 to the nearest 100	**Question 12** Round 2096 to the nearest 1000
Question 13 Work out 77 × 9 =	**Question 14** Work out 397 × 6 =	**Question 15** Simplify 9x + 4x - 3x	**Question 16** Simplify 10a + 3b + 7a + 6b
Question 17 Work out 37959 + 32050 =	**Question 18** Work out 24509 + 19451 =	**Question 19** Work out 5 × 2 + 2	**Question 20** Work out 5 × 4 + 3

SKILLS CHECK

Score





Mr Dickinson's and Miss Patchett's favourite mathematician

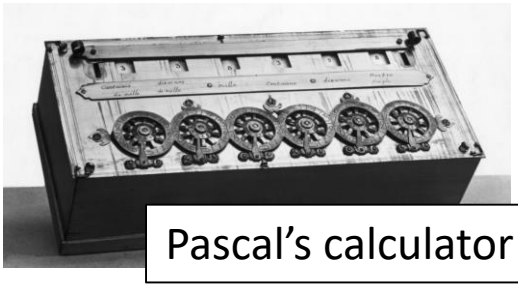
Pythagoras of Samos was a famous Greek mathematician and philosopher (c. 570 – c. 495 BC). He is known best for the proof of the important Pythagorean theorem, which is about right angled triangles. He started a group of mathematicians, called the Pythagoreans, who worshiped numbers and lived like monks.

Can you find out what the Pythagorean theorem is?

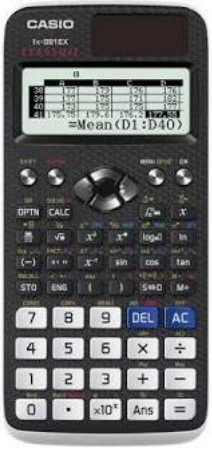
Week 3

The calculator transformation..

Blaise Pascal, in his short 39 years of life, made many contributions and inventions in several fields. He is well known in both the mathematics and physics fields. In mathematics, he is known for contributing Pascal's triangle and probability theory. He also invented an early digital calculator and a roulette machine.



Pascal's calculator



The calculator we use in school

The modern calculator can now be found everywhere, both mini and large versions and is embedded into devices such as laptops and mobile phones. How many devices that have calculators can you find in your house?

Mr Stratton's favourite mathematician

Code Breaking...

Miss Harrison's favourite number is the only even prime number

Alan Turing was a British mathematician. He made major contributions to the fields of mathematics, computer science, and artificial intelligence. He worked for the British government during World War II, when he succeeded in breaking the secret code Germany used to communicate.

In September 1939 Great Britain went to war against Germany. During the war, Turing worked at the Government Code and Cypher School at Bletchley Park. Turing and others designed a code-breaking machine known as the Bombe. They used the Bombe to learn German military secrets. By early 1942 the code breakers at Bletchley Park were decoding about 39,000 messages a month. At the end of the war, Turing was made an Officer of the Most Excellent Order of the British Empire.

Can you crack the code to reveal the 3 Maths teachers who's favourite mathematician is Turing?

A	B	C	D	E	F	G	H	I	J	K	L	M
55	47	84	10	9	75	59	64	32	15	23	50	26
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
80	63	19	3	27	30	21	92	18	35	99	69	199

8^2 - 41=	
72 ÷ 8 =	
$\frac{1}{4}$ x 200=	
92 - 42 =	
23 x 3 =	

110 – 26 =	
16 x 4 =	
$\sqrt{81}$=	
12 + 18 =	
8^2 =	
81 – 49 =	
9 x 3 =	
7^2 - 40 =	

50 - 24 =	
9 x 7 =	
15.6 + 11.4=	
11 x 6 - 7 =	
4^2 + 39 =	
10^2 - 20	

Can you make up some calculations to spell out your name using the same code breaker grid?

Can you make up your own message for a friend to decode?

Key Skills...

When you get to a page like this, spend 10 minutes completing the skills check questions based on topics from Y6.

Name : 61.3

Question 1 Write in figures : fifteen thousand, six hundred and three units	**Question 2** Write in figures : six thousand, seven hundred and nine units	**Question 3** List the factors of 42	**Question 4** List the factors of 38
Question 5 Work out 734 × 10 =	**Question 6** Work out 49 × 100 =	**Question 7** Simplify $\frac{24}{36}$	**Question 8** Simplify $\frac{5}{25}$
Question 9 Find 50% of £520	**Question 10** Find 25% of £580	**Question 11** Round 4789 to the nearest 100	**Question 12** Round 8671 to the nearest 10
Question 13 Work out 74 × 9 =	**Question 14** Work out 493 × 3 =	**Question 15** Simplify 5x - 4x - 6x	**Question 16** Simplify 8a + 4b + 6a + 6b
Question 17 Work out 22960 + 20143 =	**Question 18** Work out 16489 + 8932 =	**Question 19** Work out 29 - 11 × 4	**Question 20** Work out 2 × 2 + 5

SKILLS CHECK

Score

Mr. McManus' favourite mathematician

René Descartes

Descartes is considered the father of modern philosophy, a key figure in the scientific revolution of the 17th Century, and a pioneer of modern mathematics. Many people also call him the father of analytic geometry, which connects the fields of algebra and geometry.

Week 4

Miss Kelly's Favourite Number

Miss Kelly is yet to share her favourite number. Instead she has sent me some clues. Can you work out Miss Kelly's favourite number?

The number is between 1 and 99

It is more than 5 squared

It is less than 55

1	2	3	4	5	6	7	8	9	10
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

The number is a multiple of 3

One of the digits is a 2

The digit sum of the number is 6

Key Skills...

Miss Morgan's favourite number is $6^2 - 12$

When you get to a page like this, spend 10 minutes completing the skills check questions based on topics from Y6.

Name :

61.4

Question 1 Write in figures : sixty nine thousand, nine tens and three units	**Question 2** Write in figures : eleven thousand, three hundred and five units	**Question 3** List the factors of 56	**Question 4** List the factors of 57
Question 5 Work out 572 × 1000 =	**Question 6** Work out 411 × 10 =	**Question 7** Simplify $\frac{48}{50}$	**Question 8** Simplify $\frac{12}{60}$
Question 9 Find 75% of £760	**Question 10** Find 25% of £400	**Question 11** Round 3113 to the nearest 10	**Question 12** Round 407 to the nearest 10
Question 13 Work out 52 × 7 =	**Question 14** Work out 393 × 2 =	**Question 15** Simplify 6b + 3b + 8b	**Question 16** Simplify 5a + 5b + 4a + 5b
Question 17 Work out 48625 + 12323 =	**Question 18** Work out 13416 + 6573 =	**Question 19** Work out 7 × 2 - 4	**Question 20** Work out 9 × 2 - 5

SKILLS CHECK

Score

CALCULATOR CRUNCH

DAY 1

Don't make me LOL!

MEI Mathematics Education Innovation

Type 707 into your calculator and turn it upside down.

Did it make you ㄥ 0 ㄥ ?

How many different ways can you make your calculator laugh by getting the answer 707?

How creative can you be?

1		2	
3		4	
5		6	
7		8	
9		10	

Green – without using the 7 key

Amber – without using the 7, 0 and + keys

Red – using a mixture of operations and possibly brackets, squares and square roots

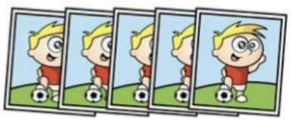
Maths Challenges...

Week 5

Can you solve all the Maths challenges?
They get more difficult as you get them..

Stickers come in packs of 5.

Max buys 12 packs.



He gave his three friends some stickers.

They each receive the same number.

He has 27 stickers left.

How many stickers did Max give each of his friends?

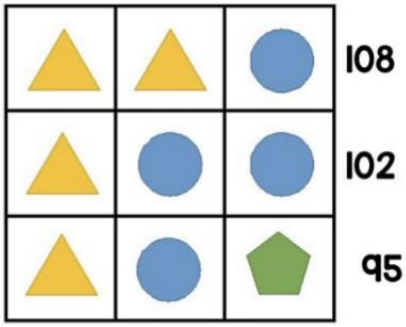
Here are 3 containers.

- The jug can hold **1500 ml**.
- The bucket can hold **2 litres**.
- The barrel can hold **15 litres**.

Anisa wants to fill the barrel with water.

Find 2 ways that Anisa can fill the barrel using the jug and bucket.

Here is a 3 x 3 grid with some shapes in.



Each shape represents a number.

The sum of each row is shown at the right of the table.

Find the value of each of the shapes.

Mr McManus favourite number is 108 divided by 9.

Key Skills...

Miss Patchett's favourite number is 7 squared

When you get to a page like this, spend 10 minutes completing the skills check questions based on topics from Y6.

Name : 61.5

Question 1 Write in figures : nineteen thousand, eight hundred and three units	**Question 2** Write in figures : six thousand, eight tens and eight units	**Question 3** List the factors of 99	**Question 4** List the factors of 28
Question 5 Work out 96 × 10 =	**Question 6** Work out 31 × 100 =	**Question 7** Simplify $\frac{6}{33}$	**Question 8** Simplify $\frac{6}{42}$
Question 9 Find 50% of £880	**Question 10** Find 50% of £360	**Question 11** Round 3291 to the nearest 10	**Question 12** Round 1928 to the nearest 100
Question 13 Work out 86 × 6 =	**Question 14** Work out 171 × 2 =	**Question 15** Simplify 7y - 4y - 5y	**Question 16** Simplify 8a + 4b + 5a + 3b
Question 17 Work out 12389 + 9125 =	**Question 18** Work out 29494 + 3633 =	**Question 19** Work out 34 - 3 × 4	**Question 20** Work out 21 - 5 × 2

SKILLS CHECK

Score

www.mathsbox.org.uk

CALCULATOR CRUNCH

DAY 2 The Day the Numbers Left

MEI Mathematics Education Innovation

Which calculation do you need to enter into the calculator to work out the missing number?

$\square \div 7 = 56$

$\square - 18 = 52$

$43 + \square = 102$

$1920 = \square \times 5 \times 3$

$256 \times \square = 4352$

Remember to show the calculations you've done, rather than just the number.

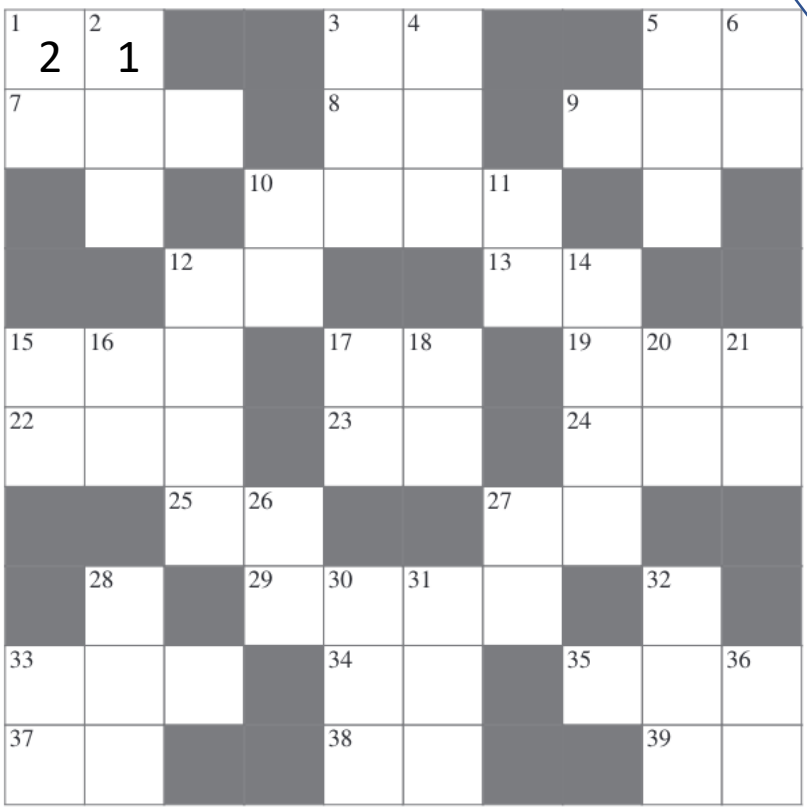
Extra: Are there any that you can solve in more than one way?

If you enjoyed this activity then you might like: **Funny Factorisation** from NRICH (nrich.maths.org/740)

Cross Number...

Week 6

USE THE QUESTIONS BELOW TO COMPLETE THE CROSS NUMBER.



Mr Dickinson's favourite number is the 7th odd number

ACROSS

1. The number of spots on a standard dice (2)
3. The largest two-digit multiple of 13 (2)
5. One more than 8 Across (2)
7. One quarter of the square of 6 Down (3)
8. $2 \times 2 \times 2 \times 2 \times 2$ (2)
9. A cube number (3)
10. 15 Across + 3 Down + 6 Down + 21 Down + 36 Down (4)
12. 39 Across − 33 Down (2)
13. Twice (1 Across + 1 Down) (2)
15. 1 Down × 38 Across (3)
17. 36 Down − 8 Across (2)
19. A square number (3)
22. The smallest three-digit square number with all its digits different (3)
23. 1 Across + 6 Down (2)
24. A multiple of 4 Down (3)
25. 27 Across + 37 Across (2)
27. 39 Across + 1 Down (2)
29. 200 × 12 Across + 27 Down (4)
33. 10 times 2 dozen (3)
34. A square of a square number (2)
35. 5 × 1 Across + one-seventh of 12 Across (3)
37. A half of 8 Across (2)
38. A cube number (2)
39. One less than 6 Down (2)

DOWN

1. A prime number (2)
2. The sum of the first ten prime numbers (3)
3. The number of hours in 39 days (3)
4. $2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2$ (3)
5. 22 Across + 28 Down (3)
6. The number of minutes in three-fifths of an hour (2)
10. A multiple of 7 (2)
11. 3 × 37 Across (2)
12. (22 Across − 6 Down) × 9 (4)
14. A number all of whose digits are the same (4)
15. A prime number (2)
16. 27 Across − 8 Across (2)
17. A multiple of 9 (2)
18. A prime number (2)
20. A square number (2)
21. The square of a square number (2)
26. 3 × 12 Across (2)
27. Two-thirds of 36 Down (2)
28. 22 Across − 1 Down (3)
30. 1 Across × 26 Down (3)
31. 25 Across + 4 Down + 5 Down (3)
32. 17 Down + 27 Across (3)
33. The sum of the digits of 1 Down, 17 Across and 17 Down (2)
36. One and a half times 27 Down (2)

Maths Challenges...

Mrs Whistlecroft's favourite number is e.....Can you research what this number is?

Can you solve all the Maths challenges?
They get more difficult as you get them..

Connor has five times as much money as Jayden.

Connor gives some money to Jayden.

They now have £8.52 each.

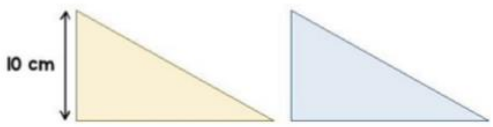
How much did Connor have at the start?

80 people take part in a race.

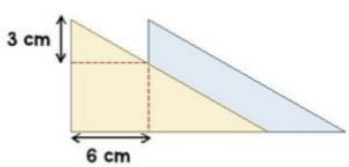
- The ratio of children to adults in the race is **2:3**.
- The mean time for the adults is **2 minutes 15 seconds**.
- The mean time for all 80 people is **3 minutes**.

Find the mean time for the children.

Here are two triangles identical in size.



The two triangles are overlapped.



What is the area of the blue triangle showing?

Key Skills...

Mr Stratton's favourite number is $3^2 - \sqrt{4}$

When you get to a page like this, spend 10 minutes completing the skills check questions based on topics from Y6.

Name :

61.6

Question 1 Write in figures : four thousand, four tens and seven units	**Question 2** Write in figures : twenty thousand, nine hundred and two units	**Question 3** List the factors of 48	**Question 4** List the factors of 36
Question 5 Work out 472 × 100 =	**Question 6** Work out 58 × 10 =	**Question 7** Simplify $\frac{5}{25}$	**Question 8** Simplify $\frac{9}{15}$
Question 9 Find 75% of £580	**Question 10** Find 75% of £420	**Question 11** Round 3986 to the nearest 100	**Question 12** Round 6369 to the nearest 1000
Question 13 Work out 28 × 8 =	**Question 14** Work out 750 × 5 =	**Question 15** Simplify 9c - 3c + 4c	**Question 16** Simplify 9a + 5b + 6a + 3b
Question 17 Work out 30099 + 18635 =	**Question 18** Work out 44233 + 37259 =	**Question 19** Work out 4 × 5 - 5	**Question 20** Work out 3 × 3 - 5

SKILLS CHECK

Score

www.mathsbox.org.uk

CALCULATOR CRUNCH

DAY 3
ORDER, ORDER!

MEI Mathematics Education Innovation

$$2 \times 100 - 60 + 40 \quad \bigcirc \quad 2 \times 100 - 40 + 60$$

Which symbol goes between these two expressions: < > or =

Can you use brackets to find ways where each symbol could be used? ( )

Is there more than one way to do it?

$$2 \times 100 - 60 + 40 > 2 \times 100 - 40 + 60$$
$$2 \times 100 - 60 + 40 < 2 \times 100 - 40 + 60$$
$$2 \times 100 - 60 + 40 = 2 \times 100 - 40 + 60$$

Year 6 Science Transition Work

Name _____

Science @ St Christopher's

Welcome to Science at St Christopher's.

All the staff at St Christopher's are really excited about the learning journey you are about to start in science.

In this booklet you will find a range of interesting science activities for you to complete during your summer holiday. They are based on some of the things you will learn about when you start with us. The tasks will have some kind of simple activity and some research that you could carry out.

We look forward to meeting you!

The Science Team

Have a go at looking at answering the questions below to get you thinking about science at secondary school.

What do you think science is?

What do you hope to learn about science?

What is the difference between biology, chemistry and physics?

Biology Activities

Special Features of Birds

In a local park, choose a bird to watch closely.

- Label the parts of the bird's body on the diagram.
- Why do you think the bird needs wings?

_____
_____

- Why does it have claws?

_____
_____

- Why does the bird have feathers?

_____
_____

Local Wildlife

Think about the living things you might find in your garden, or in your local park. List as many organisms as you can. Divide the list into producers, herbivores, and carnivores.

Producers	Herbivores	Carnivores

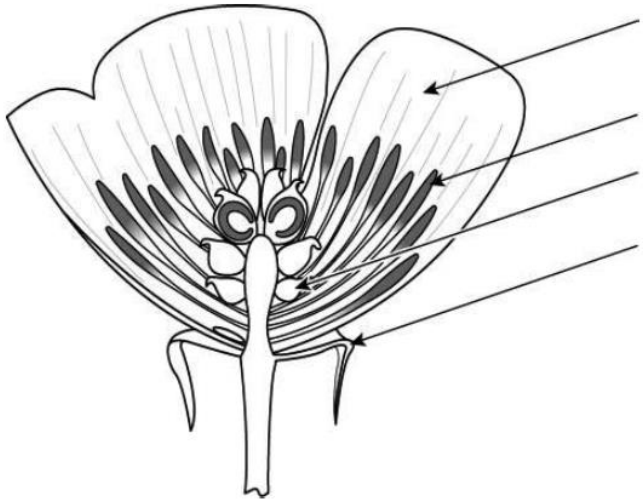
Parts of a leaf

On a visit to a park or on a walk, find a tree and collect a leaf. Use the books or the internet to identify the tree from the lead.

In the space below, draw the lead and label as many parts as you can.

Parts of a flower

Label this diagram of a buttercup flower, which has been cut in half.



Healthy Eating

During the summer holiday, find three different chocolate bars of your choice OR three different soft drinks.

Look at the nutritional information on the wrappers. Fill in the table below.

Name of chocolate bar or soft drink	Carbohydrates (per 100 g)	Fats (per 100 g)	Protein (per 100 g)	Calories

Which of the chocolate bars or drinks is the healthiest? Use your table to help you decide.

_____

_____

The Human Heart

Answer these questions using what you know about the human heart.

Where is the heart found in your body?

What does the heart do?

Your pulse measures how many times your heart beats in one minute. Your pulse goes up when you exercise.

- Record your pulse when you are resting and fill in the table.
- Now jog on the spot or do star jumps for 2 minutes
- Measure your pulse again and fill in the table

Resting pulse (beats per minute)	Pulse after exercise (beats per minute)

What is the effect of exercise on your pulse rate? Use your table to help you decide.

_____

_____

Chemistry Activities

Birthday Chemistry

Every day, scientists do investigations and make observations to answer questions in chemistry. These scientists are called chemists. Chemists work out why materials have certain properties and they find out why materials change in chemical reactions. They create new materials, with perfect properties for particular purposes.

Your task:

1. Go to the following website: https://edu.rsc.org/resources/collections/on-this-day-in-chemistry
2. Click on your birthday.
3. Fill in the form below to show others in your new class why your birthday is so important in chemistry.

Hints:

- Fill in the form in your own words
- If there is a word you do not understand, ask someone for help or look it up
- You can draw a picture or find one on the internet.

Why is my birthday important in chemistry?

Name: _____

My birthday is on _____

The name of my chemist is _____

My chemist is from this country _____

This is what my chemist did

_____

_____

_____

Here is a picture of my chemist, or of something my chemist discovered:

Sugar or Salt?

In this activity, you will plan and do an investigation to answer this question: Can you dissolve more sugar, or more salt, in a glass of water?

My plan:

- Complete the table below

Variable	**Will I change it, measure it or keep it the same?**
Substance (sugar or salt)	
Number of teaspoons that dissolve	
Volume of water	
Temperature of water	

Write down below what you will do:

_____

_____

_____

_____

_____

_____

My results:

Substance	
Sugar	
Salt	

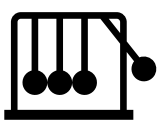
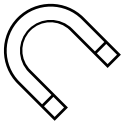
What I found out:

_____

_____

_____

Physics Activities


Circuits

Can you draw a simple circuit that you find in a torch?

Include a battery, bulb, and switch.

The Sun

Check out the Sun's position several times in one day and write the changes.

Warning: Never look directly at the Sun.

Time	Height in the sky	Position
7am		
Noon		
4pm		
9pm		

The Moon

Watch the moon every night for a week. Write down what it looks like each day.

Think about its shape and brightness.

Day	**How the Moon looks**
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	
Saturday	
Sunday	

Forces

Some types of forces slow us down when we are moving. Fill in the blanks, using the words below:

Water resistance air resistance drag

- A force that slows me down when I run is _____
- A force that slows me down when I swim is _____
- A force that slows me down when I cycle is _____

Magnets

List some objects which are magnetic and some which are not.

Magnetic objects	Not magnetic objects

“That person is like a tree planted by streams of water, which yields its fruit in season and whose leaf does not wither - whatever they do prospers.”

Psalm 1:3

Queens Road West
Accrington
Lancashire
BB5 4AY

01254 232 992
01254 355 215
admin@st-christophers.org
www.st-christophers.org