

Year 6
Home Learning 4

English	Maths	Physical	Science	Creative
Write a short story within your favourite genre. <i>E.g. fantasy, adventure etc.</i>	Please see below for additional activities. You could choose a different one each day.	Learn how to do a headstand. <i>Be careful!</i>	Think of a fun science experiment you want to complete. Carry it out and record what you found.	Draw a still life sketch of a fruit of your choice.
Research the author Jacqueline Wilson. Write a biography about her. What is your favourite Jacqueline Wilson book?	You also have MyMaths and TT Rockstars work as well as work in your text books or SATs papers.	If you have a skipping rope, practise skipping outside. <i>Try:</i> <i>Backwards</i> <i>Forwards</i> <i>Cross</i> <i>Double Under</i>	Research a famous explorer. What did they / have they accomplished? <i>E.g. Christopher Columbus.</i>	Create and design your dream garden. <i>Think about:</i> - Landscape - Features - Wildlife
Write a poem about your time in Year 6 so far.		Think of a physical exercise that you want to improve on and practise! <i>E.g. Press ups, sit ups</i>	Research Rosalind Franklin. <i>What is she famous for?</i>	Design the playground equipment for your garden and make a model if possible. <i>E.g. Swing set</i>
Write a balanced argument about homework. <i>Think about:</i> <i>The pros and cons of homework.</i>		Create a long jump somewhere safe in your house. <i>How far can you jump?</i> <i>Do it every day, record your results and see if you improve.</i>	Find out some interesting and unusual science facts.	Make a Hereford version of Monopoly.
Choose 10 different Year 6 spelling words and write a paragraph which includes them all.		Choose 3 abdominal exercises and complete them every day to strengthen your core. <i>E.g. crunches, sit ups, plank</i>	Write a report on the Sahara Desert <i>You could include:</i> - Who lives there? - What adaptations do animals have to survive there? - What are the uses of the desert? - What is the climate	Build a den. <i>Inside or outside!</i>

You also have SPAG.com and spelling shed work which is updated weekly.

This link takes you to a free workbook that covers the objectives for Year 6

<https://mailchi.mp/headstartprimary.com/free-activity-booklets>

Music	Science	Animals
https://www.digitalconcerthall.com/en/film/364	Explore the surface of Mars - https://spaceplace.nasa.gov/exploring-mars/en/	Baltimore National Aquarium - https://www.aqua.org/Experience/live

Maths Activities

Activity 1

Barcodes

The digits in barcodes have the following meanings.

The first two digits indicate the country.

The next five digits indicate the manufacturer.

The next five digits indicate the product.

The final digit is called the 'check digit' and it is included to confirm that the number has been scanned correctly.

The check digit of a barcode, which is the thirteenth digit, is calculated as follows:

Split the previous twelve digits into two sets: those in odd place order (i.e. the first, third, fifth, etc. digit) and those in even place order. These are referred to below as 'odd' and 'even' digits.

Calculate the following:

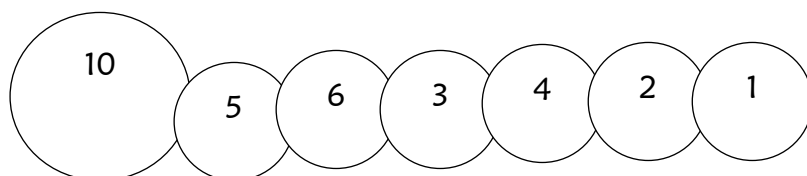
(the sum of the 'odd' digits) + (3 × the sum of the 'even' digits).

The final check digit is the smallest number you need to add to the result to get a multiple of ten.

Find some things with a barcode. Make sure the check digit is correct.

What other 'secret codes' can you find out about?

Caterpillars



Caterpillars don't live beyond 100 years old.

A caterpillar age is written on the head. The body parts are made in the following way:

If the number is even, half it

If the number is odd, add one

The pattern continues until you reach 1.

An age 10 caterpillar has 6 body parts.

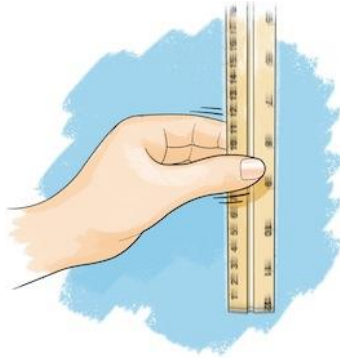
What patterns do you notice with caterpillars with other ages?

How old is the longest caterpillar?

Activity 2

Reactions

Test a partner's reaction time by recording how fast they can grasp a ruler when you drop it between their fingers. Repeat 5 times and record results.



Make a conjecture:

e.g. The older you are, the slower your reactions; You will get better over time; Girls will be quicker than boys; If you are left handed, your reactions will be quicker with your left hand; Your average time will be quicker than your first attempt; etc

Test your conjecture with others in the class and record results. Was your conjecture correct? What have you found out?

Use the data collected:

Averages: mean, mode, median

Range

Graphs

Activity 3

Integers to 10

Pick 2 integers (whole numbers) which add to 10. (3 and 7)

What is their product? (21)

Is this the maximum product with a pair which add to 10?

What is the maximum product? Why do you think that is?

Which 2 integers which add to 20 will give the maximum product? How will you prove it?

What about other numbers?

What about 3 integers which add to 10? What is the maximum product?

3 integers that total 20...?

4 integers...

...etc...

Activity 4

Nice and Nasty Numbers

Nice Numbers

2 players.

Each player draws 3 squares for a three-digit number:

A)

--	--	--

B)

--	--	--

Player A rolls a 10 sided die and puts the number in one of their squares.

Player B does the same.

Continue until all 6 boxes are filled.

Winner is the player who has made the largest three-digit number.

Variations:

Lowest number wins

Nearest to 500 wins

Largest even number wins

If the difference between the final numbers is less than 500, player A wins; if greater than 500, player B wins

Add a decimal point to the squares – closest to 1 wins

Digits can only be used once – e.g. if 7 is rolled a second time, roll again

Add scoring system – e.g. Largest number wins. The difference between the two numbers is the number of points scored by winner for that round.

Nasty Numbers

When you roll the die, you can choose to either put the digit in your grid or put it somewhere in your opponent's grid.

Variation:

Only have one 'nasty' number each game – choose when to use it; or have 2nd roll must be put in one of opponent's squares, etc...

... the possible variations are endless... get children to make up their own...

Activity 5

Shape Times Shape

The coloured shapes stand for eleven of the numbers from 0 to 12. Each shape is a different number.

Can you work out what they are from the multiplications below?

$$\square \times \square \times \square = \text{yellow semi-circle}$$

$$\text{blue rectangle} \times \text{blue rectangle} = \text{green star}$$

$$\square \times \text{orange oval} = \text{yellow semi-circle}$$

$$\square \times \text{purple star} = \text{blue hexagon}$$

$$\text{blue rectangle} \times \text{orange oval} = \text{red circle}$$

$$\text{blue rectangle} \times \text{yellow diamond} = \text{blue rectangle}$$

$$\text{blue rectangle} \times \square = \text{green triangle}$$

$$\text{yellow diamond} \times \text{blue hexagon} = \text{blue hexagon}$$

$$\text{green triangle} \times \square = \text{red circle}$$

$$\square \times \text{red inverted triangle} = \text{red inverted triangle}$$

$$\square \times \square = \text{orange oval}$$

$$\text{red inverted triangle} \times \text{yellow semi-circle} = \text{red inverted triangle}$$