

# Highflyers Curriculum News

Friday 7<sup>th</sup> January 2022



## Our Topic

This term our topic is ‘Extreme Earth’, this exciting topic explores the question: ‘How powerful is our planet?’ The children will develop their knowledge and skills through a variety of learning experiences across a range of curriculum subjects. Please look at the Topic Overview to gain more detail about the learning in different subjects.

## Homework

For each year group, Spellings will be set on Seesaw every Tuesday. Spelling Tests will take place on the following Monday. The first spelling test will take place on Monday 17<sup>th</sup> January 2022.

### Year 5 Homework

Each Friday, there will be a Times Table Test, this will alternate between Test A and Test B.

I recognise that the children will learn their tables in different ways, some may sing them, some may write them down lots of times, some may simply chant them. I have attached a sheet with further information about learning times tables.

Test A will be a specific times table that has been set as homework for the children. The children need to be able to instantly recall the multiplication facts. Instant recall means that the child can write the answer in under 5 seconds and doesn’t need to use fingers or count in multiples to reach the answer. The children will have 2 weeks to learn each times table before Test A. Additional intervention will be arranged if the test highlights that a child needs more support with learning times tables.

<u>Times Table Focus:</u>	<u>‘Test A’ Date</u>
4 Times Table	Friday 21 <sup>st</sup> January 2022
3 Times Table	Friday 4 <sup>th</sup> February 2022
6 Times Table	Friday 18 <sup>th</sup> February 2022
9 Times Table	Thursday 10 <sup>th</sup> March 2022 (11.03.22 – Training Day)
8 Times Table	Friday 25 <sup>th</sup> March 2022
7 Times Table	Friday 8 <sup>th</sup> April 2022
11 Times Table	Friday 6 <sup>th</sup> May 2022
12 Times Table	Friday 20 <sup>th</sup> May 2022

Test B is an ‘Ultimate Times Table Challenge’ this covers all times tables and is a fun way for the children to see the progress they’re making as we would expect their score and speed of recall to increase over the weeks.

### Year 6 Homework

Homework will be set and responded to via Seesaw each week. The Year 6 homework will feature a few SATs- style questions based on learning in school from the previous week. The children should be able to attempt these independently. If your child is struggling with a question, I would rather they try their best and write/say what they’re finding difficult. Then, we can go through this in school and we can provide additional support. Please don’t feel like I expect you to know the current teaching methods in Maths. I will share our Calculation Policy and I have attached a general Maths revision sheet to provide some additional information. This homework should enable the children to become familiar with applying their knowledge and skills to SATs-style questions.

## Reading

To promote Reading for Pleasure, we are in the process of creating a new, cosy 'Starbooks' area in the classroom where the children can enjoy spending time reading texts. We are also reading a class text called 'Boy in the Tower', it is lovely to spend calm, uninterrupted time together, listening to the plot unfold.

There is a wealth of research that suggests that reading for pleasure contributes significantly to the educational performance of children. Therefore, please encourage your child to incorporate reading for pleasure into their routine at home. It would be great if adults could continue to record any reading at home in the children's Reading Records. The children can write up their reading at home in their Reading Records themselves, if they read independently. Please feel free to record any text the children have read, whether it is from school or home.

It's very important that the children bring their Reading Record and reading book in their bag each day.

Over the next couple of weeks, I will be making sure that each child has a reading book from our colour-banded scheme and a Library book. The children will visit the School Library to read and change books every Thursday so must remember to bring their books, even if they're not ready to change their book.

### **PE**

PE lessons will be on a Wednesday and Thursday. It would be great if it is dry, and it is not freezing, to be able to go outside. Please provide children with an indoor and outdoor PE kit. Our outdoor PE consists of the royal blue t-shirt, blue or black joggers and trainers. If you think your child requires extra layers then please send it with them and please remember to provide socks if your child wears tights.

### **General Information**

I understand there were some issues with stationary supplies in the Highflyers last term, so I have ordered and received a delivery containing all the equipment the children will need. Therefore, please can the children keep their own supplies at home or in their school bag during the school day. It just means that they won't lose their personal items and it means that everyone can access the same equipment.

Due to Covid-19, we are required to have as much ventilation in the classroom as possible. As the roof of the school is lined with windows both sides, it can get rather cold in these winter months. Please feel free to send your child wearing extra layers and thermals. I will allow the children to wear coats in the classroom if they feel too cold.

Until we can access the Astro-Turf again, please can the children bring an old pair of trainers/wellies to change into as we are going to be using the field during the school day.

If you have any queries or concerns, then please feel free to message me on Seesaw at any time. I am thrilled to be teaching the Highflyers for the rest of the year and I'm looking forward to seeing the progress they make over the next few months.

Thanks for your continued support,

Miss Groom

# EXTREME EARTH

## **PE**

Tigers Trust will be focusing on football providing the basic skills of the game. From this children will gain the skills necessary to pursue football as a lifelong sport.

## **History / Geography**

The children will be using this term to describe and understand key aspects of physical geography, including: volcanoes and earthquakes, floods and tsunamis. Children will be encouraged to ask their own questions as to why natural disasters happen, how they affect humans and what we can do to prevent this.

## **Art**

The children will study the life and work of Vincent van Gogh. The children will experiment with creating colours, tones and texture. They will explore how to use tone and tint to create 3D shape. The children will study perspective and create a scene with perspective as part of their final piece.

## **Music**

The children will continue to have lessons with Mrs Evans. These lessons will cover several aspects of the Music Curriculum whilst the children continue to learn to play guitars.

## **English & Maths**

We will be following the White Rose Scheme to develop our knowledge and understanding of fractions, decimals, percentages, algebra and geometry. The children will also continue to develop their arithmetic methods, fluency knowledge and skills of problem solving and reasoning.

English lessons will be cross-curricular using the topic of Extreme Earth. The children will be preparing persuasive adverts to encourage people to visit a lost land, as well as descriptive writing, diary entries and non chronological reports about natural disasters.

## **Computing**

This term, the children will use and develop their IT skills to create a powerful, persuasive movie about Climate Change. They will select a target audience, plan their movie, capture and edit images/videos and compose a soundtrack to create their movie.

## **DT**

Children will look at how to stay safe during an earthquake. They will become architects, looking at how buildings can be strengthened and mobilised to withstand a tremor. Children will then use their knowledge of materials gained in science and their research to design and build their own building.

## **RE**

Children focus of faith in action, asking what inspires people to follow a faith and at what cost. To be able to answer this question children will learn about What 'vocation' is, and compare it to a random act of kindness. They will look at what commitment means for a Christian. They will then apply this to understand the commitment and influence of Matthew the Tax Collector.

## **Science**

As scientists, the children will be looking at 'Properties and Changes of Materials'. The children will work scientifically and collaboratively to investigate the best thermal insulator, making predictions and forming conclusions. Furthermore, they will have chance to find the best electrical conductor.. They will have the opportunity to work in a hands-on way to explore dissolving, identifying the different variables in their own investigations. They will find out about different ways to separate mixtures of materials, using filtering, sieving and evaporating. Finally, they will learn about irreversible changes.

## **PS.H.C.E**

Y5 children will spend this term looking at how people make decisions about spending and saving money and what influences them, how to keep track of money, and how people make choices. Y6 children will look at how to look after ourselves; growing up; becoming independent; taking more responsibility this includes, how to make choices that support a healthy, balanced lifestyle.

## Top Times Table Hints

It may seem a daunting task to learn so many multiplication facts, but because of the commutative property of multiplication, there are fewer facts than you may think. For example,  $3 \times 4$  and  $4 \times 3$  give the same answer so you need to only learn this once.

### Zero Times Table

Anything multiplied by zero will always equal zero. Multiplication is repeated addition so  $3 \times 0$  is  $0 + 0 + 0$ , which equals 0.

### One Times table

Any number multiplied by one is itself.

### Two Times Table

Any number multiplied by two is double the number.

$7 \times 2 = 14$     $7 + 7 = 14$    double 7 is 14

### Three Times Table

Digits within this times table add up to multiples of 3. For example:

3, 6, 9, 12 ( $1+2=3$ ), 15 ( $1+5=6$ ), 18 ( $1+8=9$ ) 21 ( $2+1=3$ ), 24 ( $2+4=6$ ) etc.

The numbers also follow the pattern of: odd, even, odd, even (3,6,9,12).

### Four Times Table

The four times table is double the two times table.

$4 \times 2 = 8$ ,  $4 \times 4 = 16$ , 16 is double 8.

Alternatively the fours can be thought of as double double. So double 3 (6) and double again (12) is the same as  $3 \times 4 = 12$ .

### Five Times Table

All multiples of 5 end in five or zero. For even numbers (e.g.  $8 \times 5$ ) you can halve the number (4) and then put a zero after it (40). For odd numbers (e.g.  $7 \times 5$ ) you can subtract one from the number (6), halve it (3) and then put a 5 after it (35).

Any odd number times 5 ends in a 5. Any even number times 5 ends in 0.

### Six Times Table

The six times table is double the three times table.

So  $5 \times 3 = 15$ ,  $5 \times 6 = 30$ , 30 is double 15.

### Seven Times Table

Combine the 5 and the 2 times table:  $7 \times 4 = 28$  or  $(5 \times 4) + (2 \times 4) = 28$

### Eight Times Table

The eight times table is double the four times table.

So  $7 \times 4 = 28$ ,  $7 \times 8 = 56$ , 56 is double 28.

The units in the multiples of eight also go down in twos.

8, 16, 24, 32, 40, 48, 56, 64, 72, 80 (8, 6, 4, 2, 0, 8, 6, 4, 2, 0).

# How Adults at Home Can Help.

## Times Tables Vocabulary

Here are some words that may be used whilst learning and applying multiplication and division.

multiply divide prime  
product once, twice, three times  
lots of repeated addition times  
factors array, row, column double  
repeated subtraction multiple  
sets of remainder halve

Here are some of the trickier words defined:

**Factor** – One number is a factor of another if it divides or ‘goes into’ it exactly (without any left over, a remainder). E.g. 6 is a factor of 30 because it goes into it 5 times, but is not a factor of 33 because after dividing there is a remainder of 3.

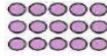
**Groups of/ lots of/ sets of** – 3 groups of 5 are 15, 3 lots of 5 are 15, 3 sets of 5 are 15 ( $3 \times 5 = 15$ ).

**Multiple** - These are the numbers that you find in a times table. E.g. 20 is a multiple of 5, 4, 2 and 10 because it is found in all of those times tables. The multiples of 5 are 5, 10, 15, 20 etc.

**Product** - A product is the answer you get when you multiply two or more numbers together. E.g. the product of 3 and 4 is 12 ( $3 \times 4 = 12$ ).

**Prime** – A prime number will only divide equally between 1 and itself e.g. 7, 11. The first ten prime numbers are: 2,3,5,7,11,13,17,19,23,29.

**Array** – As shown, an array is a visual representation of multiplication. Shown are 3 rows of 5 with 15 in total.



## Learning Times Tables

### 4. Using a multiplication Square

A multiplication square is particularly useful for establishing the link between multiplication and division facts but can also be used instead of a times table list. When children are more confident with their times table knowledge, a blank multiplication square can be filled in. Time your child to complete their square, or see how many multiples they can complete in a set time. Can they beat their score and time? (see school website for complete and blank multiplication squares).

### 5. Times Tables Games

Bingo is a great way of learning times tables as a family. Write 6 multiples from a particular times table down in a grid and the caller reads out questions from the same multiplication table.

Rolling dice and multiplying the numbers together is a good way to compete with each other to get the correct answer first. Two dice can be rolled at once to create all questions up to  $12 \times 12$ . A similar game can be created with playing cards where two cards are chosen and their values multiplied together. The Jack, Queen and King need to be 11, 12 and 0.

To help with division, each player chooses and writes down five of the following numbers: 5, 6, 8, 9, 12, 15, 20, 30, 40 and 50. Take it in turns to roll a dice and if the number you roll is a factor of one of your numbers, cross it out. E.g. if a 4 is rolled it goes into 8 so cross out 8. If 1 is rolled, you miss a go; if 6 is rolled you get an extra turn. The winner crosses all of their numbers out first.

Here are just a few games. If you create any of your own or find some really good ones, please let us know!

## Learning Times Tables

The Key to learning times tables is frequent repetition, regular revision. 5 to 10 minutes every day is better than an hour a week. A poster on the wall that is not used is simply wall paper. Here are some ideas to help your child memorise their multiplication and division facts.

### 1. Chanting

When beginning to learn a times table this is key. Repeatedly reading a times table out aloud will help your child become familiar with the multiples for that times table. Try and keep a rhythm, changing vocabulary regularly (two times three is six, two threes are six, two lots of three are six etc.) Clapping or marching may help with keeping the rhythm going. (See school website for times tables lists).

### 2. Flash Cards

Make a set of cards for the times table being learnt by putting a question on one side of the card ( $6 \times 5 =$ ) and the answer on the reverse (30). Go through the cards reading the question and then turning over to see the answer. Try and say the answer before you turn over. When familiar with the multiplication table, the cards can then be shuffled and used in a random order.

### 3. Testing and Timing

Make this fun. When your child has become more confident at learning a particular times table, ask them questions on it and see how many they can get correct in a particular time. Alternatively write some questions out of order and get them to time how long it takes to complete the questions. Can they beat their time and score?

## Learning Times Tables

### 6. Online Resources

There are many free multiplication and division games available online. Just use the search engine to uncover them all. Here are a few places to get you started:

[www.multiplication.com](http://www.multiplication.com)

[www.coolmath-games.com](http://www.coolmath-games.com)

<http://www.oswego.org/ocsd-web/games/Mathmagician/mathsmulti.html>

[http://www.transum.org/Tables/Times\\_Tables.asp](http://www.transum.org/Tables/Times_Tables.asp)

[www.tablestest.com](http://www.tablestest.com)

[www.mathletics.co.uk](http://www.mathletics.co.uk)

Many apps also exist for smart phones and tablets. Many of these are free to download. Search in the App store or on Google Play. Ibooks can also be helpful such as [Carol Vorderman Maths Made Easy Times Tables](#).

Songs can be accessed on Mathletics ([Times Tables Toons](#)) or can be downloaded at a cost. For example [Times Tables Challenge by Kidzone](#), available through Amazon mp3.

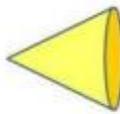
These online resources are good but are usually not enough in themselves for learning multiplication tables off by heart. They are best suited for consolidating times table knowledge and for increasing the speed of recall.

### 7. Quick Questions Anywhere!

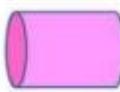
A few questions here and there are much better than hundreds in one go.

- on the way to school
- in advert breaks
- whilst getting dressed
- a few before bed

# 3D shapes



Cone



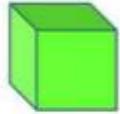
Cylinder



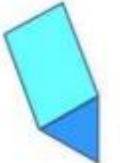
Sphere



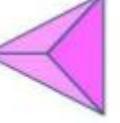
Square Based Pyramid



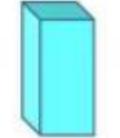
Cube



Triangular Prism



Tetrahedron



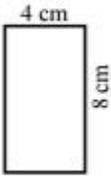
Cuboid

## Types of Quadrilateral

square	rhombus	kite
4 right angles 4 equal sides Opposite sides are parallel All sides the same length	0 right angles 4 equal sides Opposite sides are parallel All sides the same length	0 right angles 2 sets of equal sides No sides are parallel 2 pairs of sides the same length
rectangle	parallelogram	trapezium
4 right angles 4 equal sides Opposite sides are parallel Opposite sides the same length	0 right angles 3 sets of equal sides Opposite sides are parallel Opposite sides the same length	0 right angles 3 sets of equal sides 1 set of sides are parallel sides can be any length

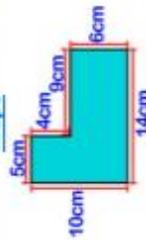
## Perimeters of Shapes

The perimeter is the distance around a shape.  
To calculate the perimeter, you add up lengths:



$$4\text{cm} + 4\text{cm} + 8\text{cm} + 8\text{cm} = 24\text{cm}$$

## Perimeter of a compound shape



## Area of Shapes (eg. cm<sup>2</sup>, mm<sup>2</sup>)

To calculate the area of a parallelogram, rectangle or square:

$$\text{Length} \times \text{Width}$$

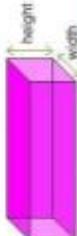


To calculate the area of triangle (eg. cm<sup>2</sup>, mm<sup>2</sup>):  
(Base x Height) ÷ 2



## Volume: (Remember cm<sup>3</sup>)

$$\text{Length} \times \text{Width} \times \text{Height}$$



# Maths Revision made Easy

## Units of Mass

<b>Kilometres and Metres</b> $1\text{ km} = 1000\text{ m}$ $0.75\text{ km} = 750\text{ m}$	<b>Kilograms and Grams</b> $1\text{ kg} = 1000\text{ g}$ $3.5\text{ kg} = 3500\text{ g}$
<b>Metres and Centimetres</b> $1\text{ m} = 100\text{ cm}$ $2.6\text{ m} = 260\text{ cm}$	<b>Tonnes and Kilograms</b> $1\text{ tonne} = 1000\text{ kg}$ $20\text{ tonnes} = 20000\text{ kg}$
<b>Metres and Millimetres</b> $1\text{ m} = 1000\text{ mm}$ $2.6\text{ m} = 2600\text{ mm}$	<b>Units of Capacity</b> <b>Litres and Millilitres</b> $1\text{ litre} = 1000\text{ ml}$ $1.68\text{ litres} = 1680\text{ ml}$
<b>Centimetres and Millimetres</b> $1\text{ cm} = 10\text{ mm}$ $31.5\text{ cm} = 315\text{ mm}$	

## Angle Sums

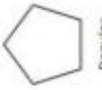


**Straight Line and a triangle = 180°**



## Regular/ Irregular

In regular shapes, all of the angles are the same and all the sides are the same length.  
In irregular shapes, the angles or sides are different.



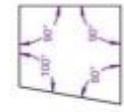
Regular



Irregular

## Angle Sums

Quadrilaterals and about a point = 360°



## Circles

Radius, Diameter and Circumference



The diameter is double the radius.  
The circumference is the distance around the circle.

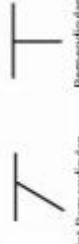
## Parallel and Perpendicular

-Parallel lines or sides stay the same distance apart.



Not Parallel

-Perpendicular lines or sides meet at right angles.



Not Perpendicular

## Averages

**Hey Diddle, Diddle,**

**The median's the Middle,**

**You Add and Divide for the Mean,**

**The Mode is the one that Appears the Most, And the Range is the Difference Between**

## Prime Numbers

A number that is only divisible by itself and 1.  
**2, 3, 5, 7 (not 9) !!**

## Factors:

Factors divide into a number exactly.

Eg. The factors of 6 are: 1, 6, 2 and 3

## Multiples:

Think Times tables.

Multiples of 3 are: 6, 9, 12, 15 etc.

## Squared Numbers:

$$5^2 = 5 \times 5 = 25$$

## Cubed Numbers:

$$5^3 = 5 \times 5 \times 5 = 125$$

## Roman Numerals

Symbol	Value
I	1
V	5
X	10
L	50
C	100
D	500
M	1000

## Days in a Month

30 days have September, April, June and November,

All the rest have 31,

Except February alone,

It has 28 days clear,

And 29 in each leap year.

**Remember, in a year, there are: 52 weeks, 12 months or 365 days.**

## Type of Angles:

Acute angle less than 90°

Right angle = 90°

Obtuse angle between 90° and 180°

Straight line = 180°

Reflex angle greater than 180°

Complete turn = 360°

