Bacon's College
The best in everyone™
Part of United Learning

WELCOME TO YEAR 7 TRANSITION NEWSLETTER

NEWSLETTER 2: ENGLISH, MATHS AND SCIENCE

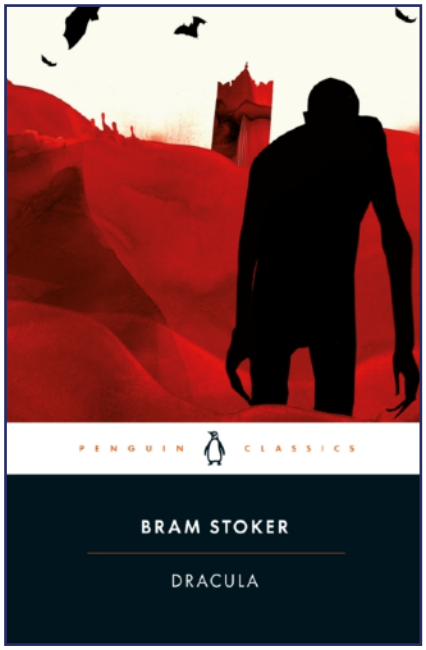
Hello again!

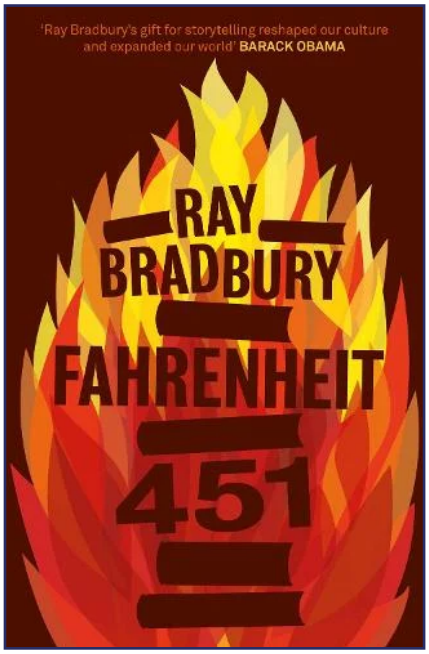
This newsletter introduces you to some of the learning you will cover in English, Maths and Science across Key Stage 3.

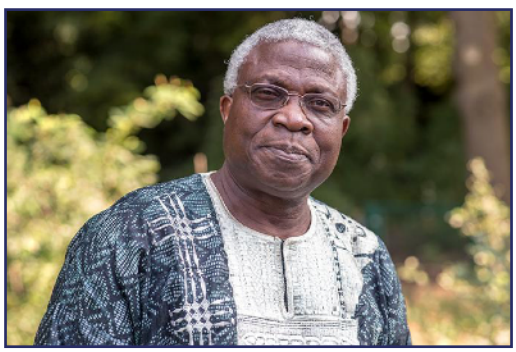
ENGLISH

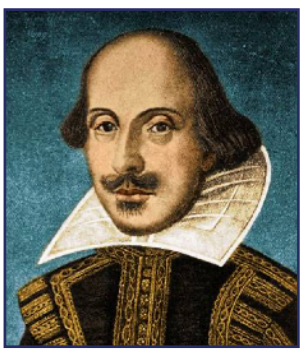
The English lessons you will have in KS3 at Bacon's will introduce you to the rich diversity of English literature from Shakespearean tragedy to modern novels and poetry. Our curriculum will help you to think hard about your world and the worlds of others. We want you to learn how to use your voices in speech and writing, as well as to become bold and determined readers. We look forward to seeing you in September.

A taste of the books and authors you will study…









There's so much to enjoy beyond English lessons…

Learn to use your words to inspire others in the Jack Petchey Speak Out Challenge

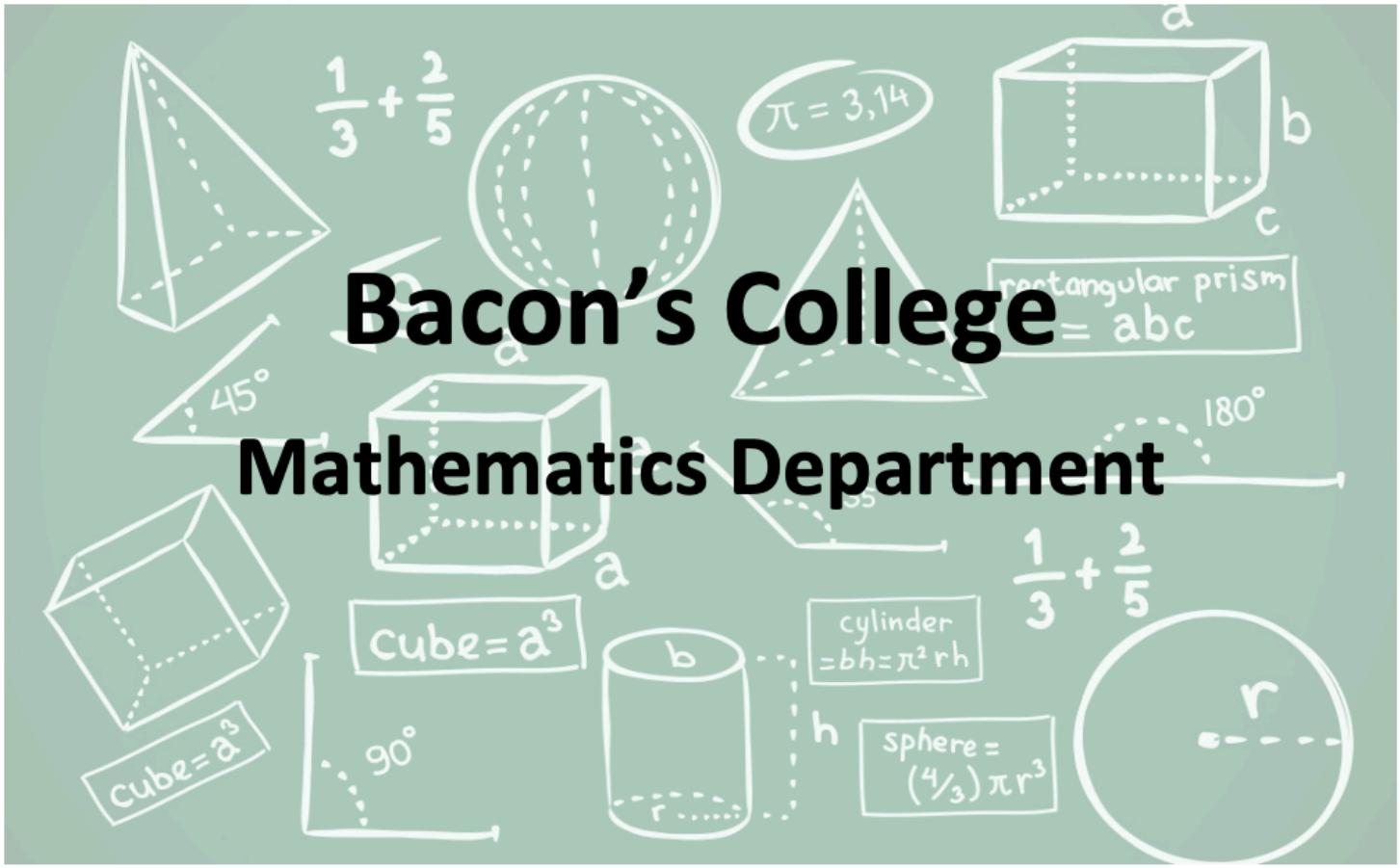

Discover and enjoy a world of reading in our welcoming library

Escape with a good book in our whole school reading sessions and meet inspiring authors


MATHEMATICS

All the mathematics teachers at Bacon's College are very much looking forward to meeting you. By completing this booklet, you will be able to find out some facts about the mathematics department, our lesson structure and do some mathematics either on your own or with your family/carers to prepare you for a great start to Year 7.

We cannot wait to meet you…



WHAT WILL YOUR LESSONS LOOK LIKE?

There are 5 different elements that make up a mathematics lesson.

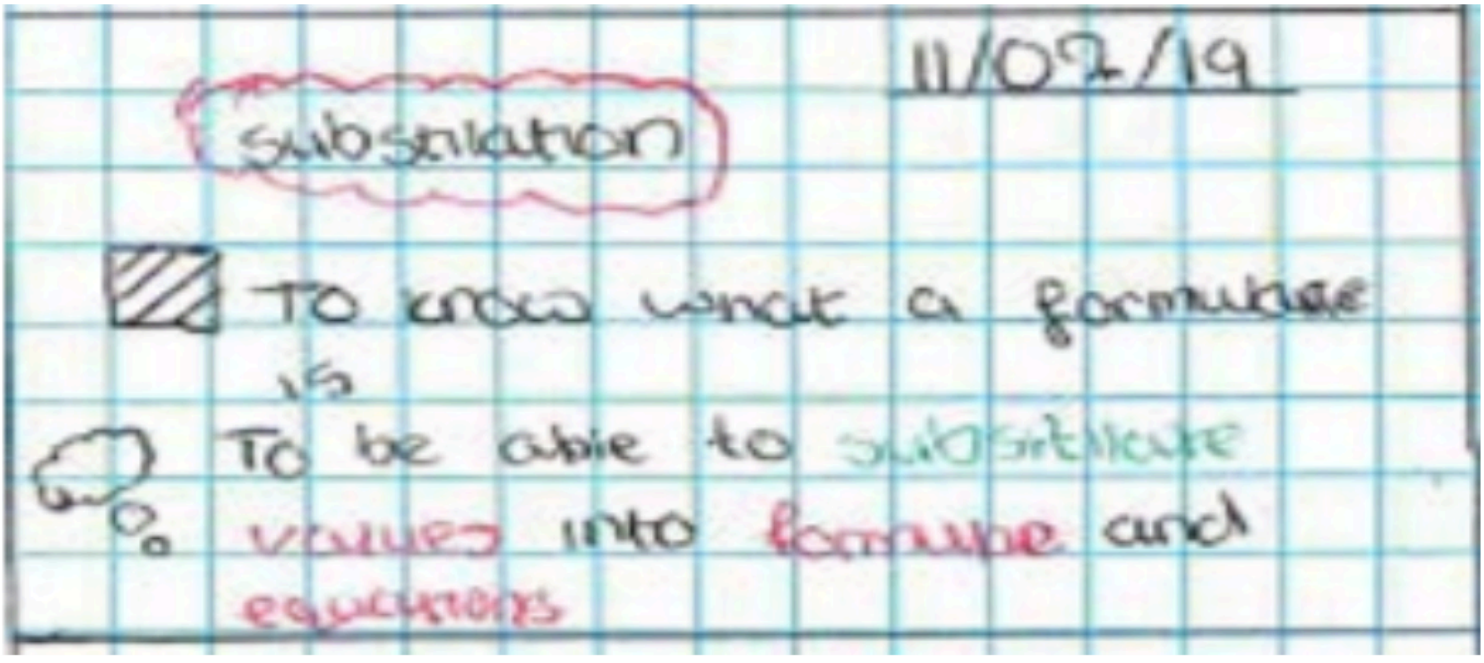
1. **Do Now**
   Students complete a Starter Grid at the start of the lesson to check their prior knowledge.

Complete your starter grid **10 Minutes**

Convert: (a) 18 kilograms into grams (b) 0.681 tonnes into kilograms	Between which two integers does $\sqrt{70}$ lie?	John buys 8 identical pens for 72p. i. How much would 1 pen cost? ii. How much would 11 pens cost?
A is (3, 9) and B is (5, 7). Find the coordinate of the midpoint of AB.	Increase 200 by 35%	The ratio of the number of green pens to the number of red pens in a pot is 2 : 5 What fraction of the pens are red?

2. **Learning Objectives**
   To know – this will describe a prior learnt fact will help you in the lesson.
   To be able to – the describes the skills you will be learning in the lesson.

Red words indicate nouns **Green words indicate verbs**



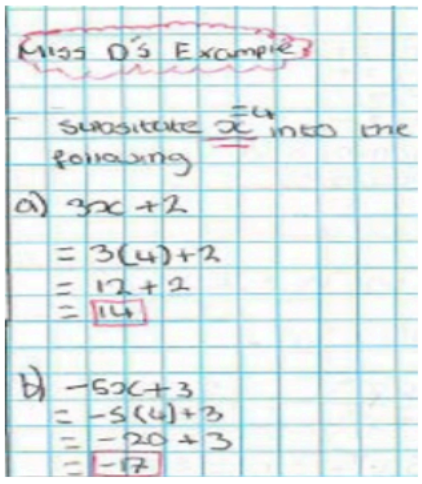
3. **I Do, We Do, You Do.**

This helps to avoid cognitive overload and give pupils the support they need to learn new material in small chunks.

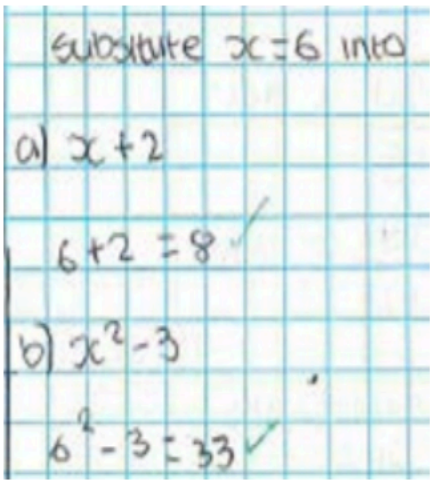
I Do – the teacher models an example
We Do – Students complete a similar question and it is discussed as a class
You Do – independent practice

Examples:

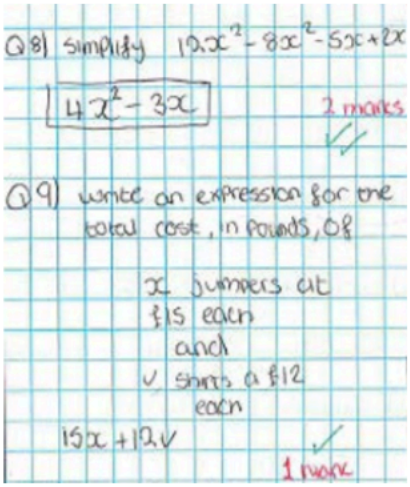
Do



We Do



You Do



4. **Questioning and Assessment**

Questioning and assessments occur ever lesson and a KPI test is carried out after each module to review understanding and identify any gaps in knowledge.

Name:	Date:	Class:	Total: /21

KPI [**Real**] 7.14 – Expanding and Factorising

1. Work out the following HM: 42

a) 2×-7 b) -7×-7 c) $1 \div -5$

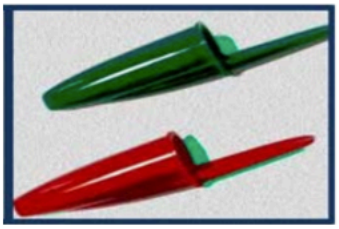
_____ _____ _____

(___/3)

2. Expand HM: 160

a) $4(y + 3))$ b) $7(2x - 1)$

5. **Highly Quality Feedback** – Pupils self-assess their work with **green** pen and teachers mark with **red**.



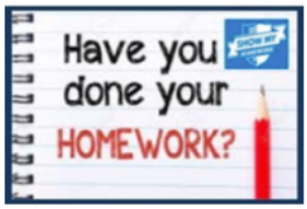
WHAT WILL WE BE STUDYING IN YEAR 7?

The Schemes of Work below sets out the topics to be taught each half team.

KS3 Schemes of Work (SOW) Summary

Year 7 SOW			
Term	**Topic**	**KPIs related to topic content**	
1a	Place value and Number sense	7.01	Understand and use place value for decimals, measures and integers of any size
	Addition and Subtraction	7.02	Use Addition and Subtraction, including formal written methods, applied to integers, decimals
	Perimeter	7.03	Calculate and solve problems involving perimeters of rectangles and compound shapes (not circles)
	Rounding & Estimation (in real life situations)	7.04	Estimate calculations by rounding
1b	Multiplication and Division	7.05	Use Multiplication and Division, including formal written methods, applied to integers, decimals
	Factors and Multiples	7.06	Use the concepts and vocabulary of prime numbers, factors (or divisors), multiples, common factors, common multiples, highest common factor, lowest common multiple
	Area of rectangles and triangles and parallelograms	7.07	Derive and apply formulae to calculate and solve problems involving area of triangles and rectangles
2a	Fractions as part of a whole	7.08	Express one quantity as a fraction of another, where the fraction is less than 1 and greater than 1
	Fractions as a value	7.09	Use addition and subtraction, including formal written methods, applied to proper and improper fractions, and mixed numbers
		7.10	Compare and order fractions by creating common denominators
	Fractions as an operation	7.11	Interpret fractions as operators
2b	Order of operations	7.12	Solve calculations requiring understanding of B-I-DM-AS (know that the inverse of squaring is 'square rooting')
	Basic rules of algebra	7.13	Use the basic rules of algebra
	Expand and factorise	7.14	Simplify and manipulate algebraic expressions to maintain equivalence by multiplying a single term over a bracket or by taking out common factors
	Substitution	7.15	Substitute into simple formulae
3a/3b	Angles	7.16	Apply the properties of angles at a point, angles at a point on a straight line, vertically opposite angles
	Polygons	7.17	Derive, describe and illustrate properties of triangles, quadrilaterals and other plane figures [for example, equal lengths and angles] using appropriate language and technologies
	Symmetry and reflection	7.18	Describe, sketch and draw regular polygons, and other polygons that are reflectively and rotationally symmetric
	Coordinates	7.19	Read and plot coordinates in all 4 quadrants
3b	Mean	7.20	Describe, interpret and compare observed distributions of a single variable through the use of the mean
	Two-way tables & Venn diagrams	7.21	Enumerate sets and unions/intersections of sets systematically, using tables, grids and Venn diagrams

HOMEWORK



- We use Sparx as our homework platform https://sparx.co.uk/
- Pupils are provided with a separate exercise book to complete their homework.
- Approximately 1 hour of homework is set each week for Year 7.
- Homework instructions are uploaded each week on "Show My Homework" (recently renamed "Satchel One") for ease of reference for both pupils and parents https://www.satchelone.com/
- Pupils use a checklist as criteria for their homework to ensure it is completed to the highest of standards.

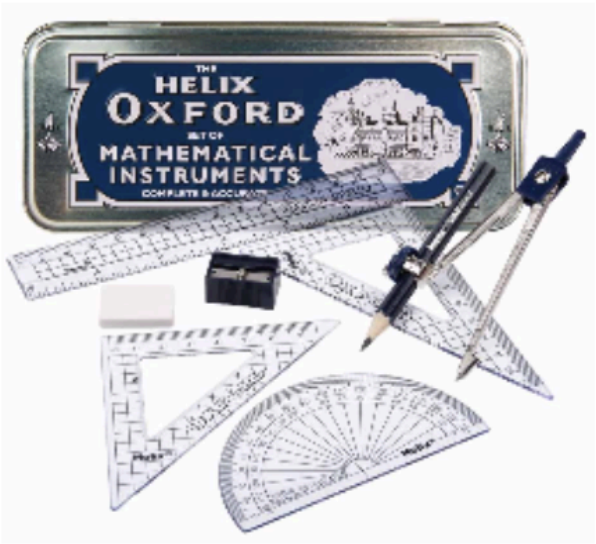
Homework Checklist	Pupil Check	Teacher Check
1. I have drawn a margin on each page (either a line down the middle of each page, or at the left-hand side.)		
2. I have written the **Title** e.g., **"Sparx Week 1"** and **underlined** this.		
3. I have written the **Date** and **underlined** this.		
4. I have noted down every **Question Code** e.g., FG20.		
5. I have shown my **working out** and answers clearly.		
6. I have **marked** my Quiz answers using a green pen (tick or cross is all that is needed)		
7. I have **watched** the video and copied one example down when I have answered a question incorrectly.		
8. I have **achieved 100%** on the compulsory tasks.		
Presentation (Teacher Assessed) Excellent Good Needs Improvement Unacceptable		

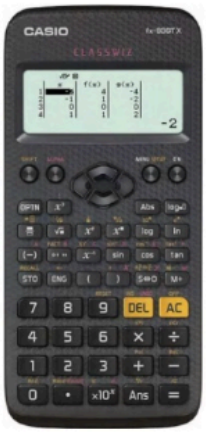
MATHEMATICAL EQUIPMENT

Mathematical Equipment

Pupils are required to bring their own mathematical equipment to every lesson. This includes:

- Blank, green and red ink pens
- Pencils
- Rubber
- Highlighters
- A geometry set
- Scientific calculator





CALLING ALL MATHS EXPLORERS

I need explorers to help me tackle some projects over the summer holidays!

Your new Maths teachers and I are keen to see what you'll explore.

Students

- United Learning Maths teachers have set up some summer holiday projects for you to explore over the break.
- Choose whichever, and as many, projects as you wish. The information you need is in the table below.

Puzzle Project	What's your speed?	Bridges, Paths and Networks
Video Introduction	Video Introduction and Instructions	Video Introduction
PowerPoint to work from and additional documents	PowerPoint to work from	PowerPoint to work from

Adults

- After sharing the top section of this poster with your young person please find further guidance on the projects via written documents or videos in the table below.
- We encourage you to engage with your young person's work over the summer and help them to present what they have done via a PowerPoint presentation, a poster or a video.
- All project work should be submitted to mathsexplorers@unitedlearning.org.uk
- In the body of the email please include:
    - Name
    - Primary School
    - Secondary School
    - Name of chosen project

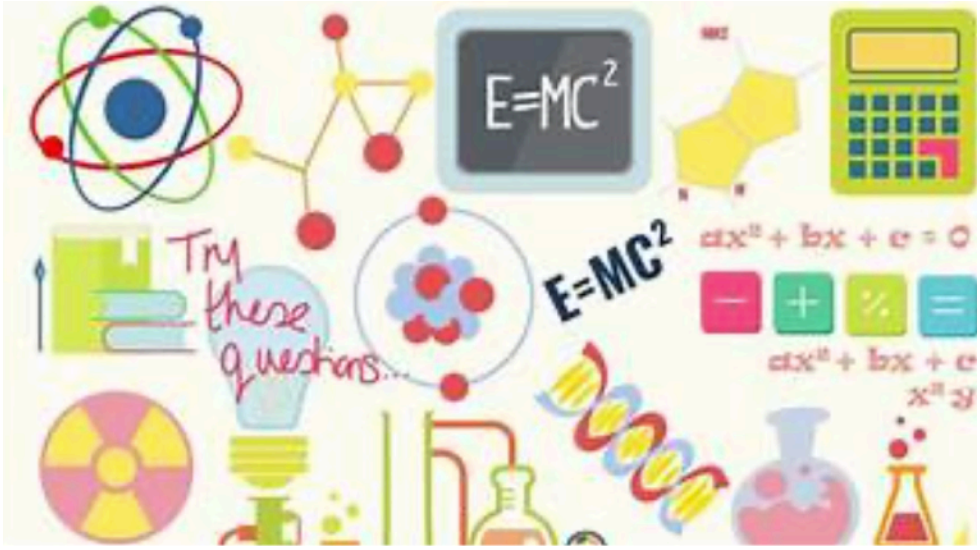
Puzzle Project	What's your speed	Bridges, Paths and Networks
Adult Overview	Adult Overview	Adult Overview and Solutions

SCIENCE

Hello!

Our Science Curriculum at Bacon's fosters a healthy curiosity about the universe for the living and the non-living. The intention is to encourage our students to become critical thinkers by developing key scientific skills through the use of discovery and application of practical experiments.

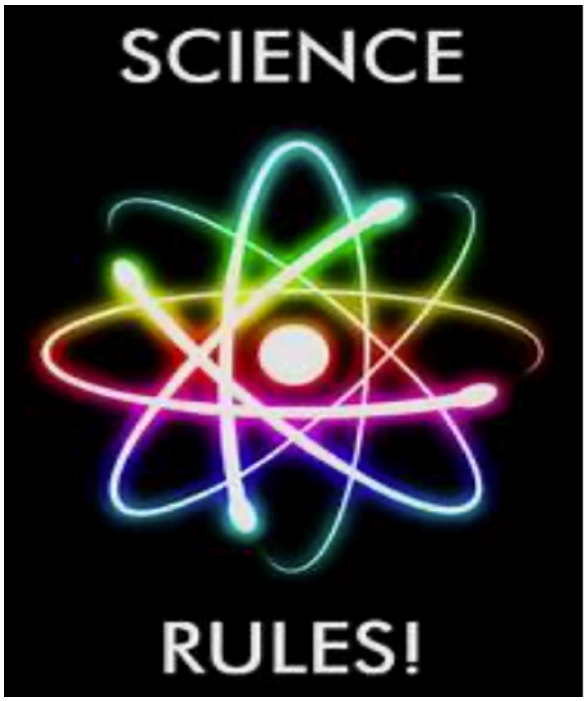
We are looking forward to meeting you all in September. Welcome to Bacons from the Science Department.



What are you getting out of Science at Bacon's?

We offer a strong foundation for promoting subject knowledge and ensuring skills and knowledge are mastered in each topic. This is achieved through our amazing knowledge organisers which students receive once they begin a topic.

We have provided some examples of these for the topics you will be starting with next year.



KNOWLEDGE ORGANISERS

Often the best way to learn a knowledge organiser is with a simple process of: look at the original, cover the original, write out what you can remember on a blank copy, uncover the original and add the parts you couldn't remember in a different coloured pen (correcting any mistakes), look over the second copy a few days later and repeat. We will often do exercises using knowledge organisers in school, i.e. from the 7BC one, fill in this table:

An **Organelle** is a specific part within a living cel that serves a function e..g. nucleus.
Here are the organelles you need to know about:

Organelle	Function
Nucleus	
Cell Membrane	
Cytoplasm	
Mitochondria	
Ribosome	
Cell Wall	
Chloroplast	
Vacuole	

Knowledge organisers can also be used as the basis for flash cards containing the key information that needs to be learnt.

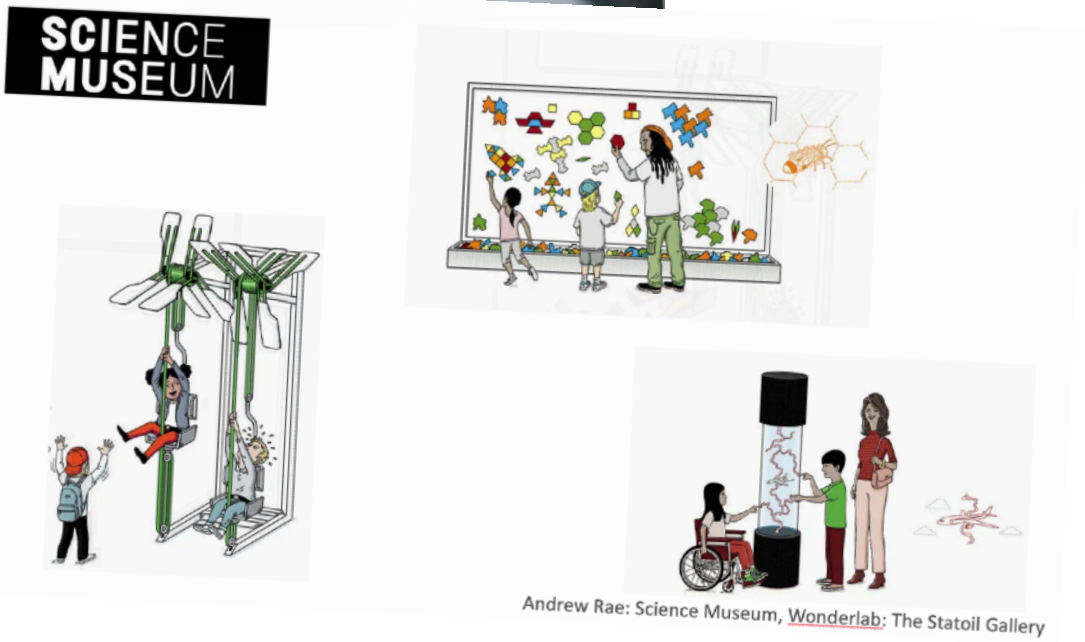
SCIENCE CLUB

We will also have a science club that we would encourage you to attend. Here is a schedule of what should be happening for the September term 1 however, please note this could be subject to change.

WEEK 2	**JUNGLE IN A BOTTLEBOX**
WEEK 3	**HOW THE DIGESTIVE SYSTEM WORKS**
WEEK 4	**FRUIT DNA**
WEEK 5	**FINGERPRINTS**
WEEK 6	**STRANDED ON THE GALAPAGOS ISLAND**
WEEK 7	**BOUNCING EGG**
WEEK 8	**HALLOWEEN SPECIAL**

TRIPS AND ACTIVITIES

We run a number of trips and fun activities throughout the year. A few examples are below!



Andrew Rae: Science Museum, Wonderlab: The Statoil Gallery