UNIVERSITY OF BIRMINGHAM SCHOOL

University of Birmingham School Curriculum Outline

Year 7

Academic Year 2020/2021

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Term 1a	Term 1b	Term 2a	Term 2b	Term 3a	Term 3b
English					
Using the **Storyspinner's tales**, we analyse the structure of stories and then write and tell our own. **Drama**: Use of voice to deliver Story to peers.	***My Family and Other Animals****:* We read this classic text together and develop skills in analysis and descriptive. **Drama**: Dramatising class readings of the novel.	***My Family and Other Animals*** (cont.). Developing PEEL analysis skills. **Drama**: Dramatising class readings of the novel.	**Shakespeare: *The Tempest*.** An introduction to Shakespeare's world and language. **Drama**: Use of text extracts to perform key scenes of plas as ensemble.	***The Tempest*** (cont.). Developing analytical skills and explore dramatic choices. **Drama**: Use of text extracts to perform key scenes of plas as ensemble.	**Murder mystery**: We get out our notebooks and investigate a classic Christie murder mystery. **Drama**: Re-enact predictions of outcomes of the story.
Mathematics					
Number 1: Sequences and the study of patterns. **Shape 1:** Area and Perimeter. **Number 2:** Negative numbers. Calculator Skills and Rounding.	**Number 2:** arithmetic with fractions and decimals **Algebra 1:** expressions and word equations Two way tables and Venn diagrams	**Data 1:** collection and representation **Algebra 2:** graphs **Number 3:** BODMAS	**Number 4:** powers and primes. Factors, multiples etc **Data 2:** probability Arithmetic recap	**Algebra 3:** equations **Shape 2:** volume **Shape 3:** construction and compass skills **Data 3:** interpreting real life graphs	**Number 5:** fractions, decimals, percentages **Shape 4:** scale drawing Inequalities
Art					
Students will create a collaborative sculpture alongside a page of artwork showing their 'current' skills in drawing, shading, paint work, collage and using an artist as inspiration.	Students will explore colour theory and use this knowledge to help with subsequent watercolour techniques.	Students will further develop their colour mixing and watercolour skills. We will explore a contemporary water colour artist and create work in a response to him. They will also begin to use sophisticated art specific language to analyse work.	Bugs is the theme! After creating observational studies of creepy crawlies, students will have a go at clay sculpture with the aim of creating a year group installation inspired by Anna, Collete-Hunt's work 'Swarm'.	Students will firstly conclude their work on bugs, painting their fired clay and presenting their drawings. Following that, we take a look at just a snapshot of Art's vast history. We learn through storytelling and find out about art work created in 16,000 BCE. A taster of the range of career opportunities in art will also be introduced.	Student's end of year assessment will be a challenge which encompasses many of the areas developed throughout the year. It will assess observational drawing skills, colour mixing, contemporary watercolour techniques and their art specific language.

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Biology					
Find out about **cells**, the building blocks of living things and discover how to use a microscope and earn your microscope licence.	Learn the names and jobs of all the parts of a **flower** and then discover the fascinating ways plants have developed to reproduce and disperse their seeds around the globe.	Learn the **structure of human reproductive organs** and practice explaining the sequence of events involved in fertilisation of an egg and the menstrual cycle.	**Practice using the vocabulary** you learnt last term whilst discovering how twins are formed and how the foetus grows and develops in the womb. **Develop your data analysis skills** by taking measurements, plotting bar and line graphs and describing the trends.	Learn about the structure and function of **chromosomes and genes**. Also **practice your graph drawing skills** and learn the difference between a bar graph and a histogram. Carry out your own research on how the structure of DNA was discovered.	**Develop your oracy and scientific writing skills** by describing and justifying animal adaptations and explaining the process of natural selection.
Chemistry					
Apparatus Naming important apparatus, using Bunsen Burners, heating chemicals. Safety Lab safety, hazard symbols Particles Particle model of Solids liquids and gases	**Particles** Changes of state	**Elements and atoms** The periodic table, names and symbols of elements, names and symbols of groups. **Compounds Particle** model of elements, compounds, molecules and mixtures	**Compounds and Reactions** How to make scientific observations in reactions	**Separation Techniques** Definition of a mixture. Chromatography, filtration, evaporation, distillation	**Acids and Bases** Properties of acids and alkalis, pH scale, different types of indicators, neutralisation reactions and equations
Computer Science					
Computer History. Students will start learning about how fast the CPU has developed over the last 20 years which has enabled a massive growth in the complexity of software. **Introduction to algorithms.** Students will learn what an algorithm is and how to draw them using flowcharts.	**Introduction to programming.** Students will learn how to do simple programming using bitsbox which is coding website aimed at children. It covers all of the main aspects of coding including selection and variables. The focus of this unit is to familiarize students to text based coding and some of the underlying concepts they will need in year 8.	**Binary** A fun little unit where students learn to make any number they wish using just 1 and 0. **Hardware** Students will learn the purpose of a number of key aspects of computers. This includes the CPU, memory and storage devices.	**Robotics and computational thinking.** Problem solving is a core aspect of CS. One of the first skills students will need to learn is decomposition. In this unit students will be asked to solve problems using a robot. It will require them to decompose the problem and work in teams to find solutions.	**Bitsbox game** This unit students will be guided towards making their first game using bitsbox. They will use online video tutorials to get the bare bones of a game working. They will then add more features to the game using the skills they have developed so far.	**Revision and end of year assessment.** The end of year assessment will be split over two sessions. The first will explore theory whist the second will be a practical programming task. **Digital safety** This unit will be based on the current dangers young people face online. It will be focused on how they can show their virtues online.

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DT					
Rotates half way through the year between: **1.Electronics steady hand game.** (Circuits and components. Soldering and H&S) and **2.Metal Sculptures**. Ferrous and nonferrous metals. Brazing and welding.					
Geography					
Chocolate A research project enables students to study learn about their classmates chocolate habits. They will learn about the different people and places around the world that are involved in the production, distribution and consumption of chocolate and the complex issues that arise from this.		**Microclimates** Students study the microclimate of the University of Birmingham School's site exploring the factors that affect it. We explore what impacts these have on a regional level; studying the urban heat island. They will understand how physical and human factors affect the weather and can fundamental impact on the global climate.		**Brazil** Brazil provides a basis to explore synoptic links between physical, human and environmental Geography. Students study the rainforest and the issues that arise when humans interact with a natural environment. Students complete an independent investigation on Brazil. Some will be selected for the UoB Travel Guide which is published annually	
History					
When did modern Birmingham begin? Pupils will look at Birmingham during the key periods of its history. This will introduce pupils to the big stories we will be building over the next three years. Also they will develop their understanding of change over time.	**How radical was the Norman Conquest?** Historians cannot agree on the extent to which the Norman Conquest changed England and if that change was good or bad. Exploring the political, economic, social and religious impacts of the Norman Conquest pupils will reach their own conclusions.	**How accurate is the view that King Richard was good and King John was bad?** Pupils will explore the reigns of Richard and John. They will look at the Richard's rule of England, the Third Crusade, John's loss of Normandy and John's relationship with the barons. Then they will assess how accurate the interpretation is.	**How far did the Black Death change England?** Pupils will explore what the Black Death was before examining what life was like before and after the Black Death. Pupils will see the impact on the lives of rich and poor, those living in the town and in the countryside, on religious beliefs and on the treatment of minorities. Then they will assess how far the Black Death changed England.	**What was the most important consequence of the Reformation?** Pupils will explore the social, political, economic and cultural impacts of the Reformation. They will then assess which they think is the most important.	

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Modern Languages					
<u>Tout sur moi</u> **Personal information, physical appearance, favourite objects** Phonics Classroom language Introduce yourself Describe yourself and other people Describe your favourite object French-speaking regions	**<u>Mon monde personelle</u>** **Personality, family, school, subjects, friends** Describe your personality Talk about family members and friends Give opinions of school subjects Home and family life; compare yourself now with how you used to be	**<u>Autour de moi</u>** **School, home and animals** Talk about school and where you live Talk about leisure activities and personal possessions Describe animals	**<u>A table</u>** **Food** Say what you eat and drink at different mealtimes Give opinions on food and drinks Say where you like to eat out Order food in a café Use quantities and understand recipes (Making crêpes) Talk about food specialities and art	**<u>Le monde francophone</u>** **Studying French-speaking countries around the world with a focus on Martinique** Revision and preparation for end of year exams	**<u>Film project</u>** **Short films from the British Film Institute** **Cini-minis pour les jeunes** Claude Barras, Le génie de la boîte de raviolis Benjamin Renner, La Queue de la Souris
Music					
Understanding Kpanlogo		Exploring the Orchestra		Understanding Minimalism	
PE					
Induction – what is PE? Rotation around all facilities and introduction to curriculum language **Contact Rugby** (Fields) (Skill Acq. and character)	**Badminton** **Sports Hall Athletics Award** (AS / MH/ SH) (Skill Acq. / Leadership)	**Sports Hall Athletics Award** (AS / MH/ SH) (Skill Acq. / Leadership) **Conditioning** (MUGA/ AS) (Health and Fitness)	**Aesthetics** (Dance) (MH) (Skill Acq. / Leadership / Analysis)	**PAML Athletics** (Fields) (Skill Acq. / Fitness / Analysis / Leadership) **S+F Cricket / Rounder's** (Fields) (Skill Acq. / Analysis / Leadership)	**S+F Cricket / Rounder's** (Fields) (Skill Acq. / Analysis / Leadership) **Olympic and Paralympic Project**

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Physics					
Core skills Carry out practical experiments independently and safely, recording your results in a table and drawing graphs.	**Electricity** Connect electrical components in series and parallel, and draw circuit diagrams. Describe the motion of electrons (current) in different circuits. **Energy** Identify the different ways energy is stored, and the ways this can be changed.	**Energy (continued)** Measure how powerful you, and various appliances are. **Thermal physics** Investigate how objects change when they are heated, and how heat energy can be transferred.	**Practical project** Tour the school's rooftop solar panels and heating systems. Investigate a key design feature over several weeks in the lab, just as a real scientist or engineer would.	**Practical project (cont.)**	**Space physics** Discover the past and future of the solar system and Universe, the causes of days and seasons, and how humans have explored space.
Religious Studies					
Communities **Big question:** how should we live together peacefully? **Island story:** A shipwreck means we're stranded on an island outside the known world… **Religion links:** Church, symbols, Ummah, mosque	**Symbols and rituals** **Big question:** how can we show meaning without words? **Island story:** We find ourselves holding a vigil then planning a symbolic ceremony… but why? **Religion links:** Symbolism, actions, words, communities	**Rules and values** **Big question:** are religious rules and values important today? **Island story:** A crisis means we think about rules and values… **Religion links:** 10 Commandments, the Golden Rule, Qur'an, Sunnah, Sharia Law	**Writing the history** **Big question:** why are stories from past important? **Island story:** 30 years on and we're worried no-one will remember the old world… **Religion links:** Bible, Qur'an, origins of sacred texts, how should these texts be understood?	**Sects and factions** **Big question:** how can we be the same but different? **Island story:** 500 year on the community divides… **Religion links:** Protestants and Catholics in Christianity, Sunni and Shi'a in Islam	**Are religions more similar or different?** Drawing together our learning from the Island story, developing our skills as religious studies scholars and packaging up our learning for year 8.