Etal Class Overview – Autumn 2 2023

<table>
<tr><td>Subject</td><td colspan="2">What we will learn this half term</td></tr>
<tr><td>English</td><td colspan="2">Our class book this half term is The Polar Bear Explorers' Club by Alex Bell. We will use this book, alongside a range of fiction and non-fiction texts, to continue to develop our vocabulary and skills in inference, prediction, clarification and evaluation.

This half term we will produce a range of writing including:
● Diary entry- based on the book Scott Of The Antarctic by E & J Dowdeswell / Angela Seddon
● Persuasive letter to Mr Scrooge</td></tr>
<tr><td>Maths</td><td><u>Year 5</u>

Negative numbers: counting, comparing and calculating

● Positive and negative numbers can be used to represent change.

● Our number system includes numbers that are less than zero; these are negative numbers. Numbers greater than zero are positive numbers.

● The negative/minus symbol (−) is placed before a numeral to indicate that the value is a negative number.

● Negative numbers can be shown on horizontal scales; numbers to the left of zero are negative (less than zero) and numbers to the right of zero are positive (greater than zero). The larger the value of the numeral after the negative/minus symbol, the further the number is from zero.</td><td><u>Year 6</u>

Multiplication strategies for larger numbers and long multiplication

● When multiplying two numbers that are multiples of 10, 100 or 1,000, multiply the number of tens, hundreds or thousands and then adjust the product using place value.
● When multiplying two numbers where one number is a multiple of 10, 100 or 1,000, use short multiplication and adjust the product using place value.
● Two two-digit numbers can be multiplied by partitioning one of the factors, calculating partial products and then adding these partial products. This method can be extended to multiplication of three-digit numbers by two-digit numbers.
● 'Long multiplication' is an algorithm involving multiplication, then addition of partial products, which supports multiplication of</td></tr>
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	• Knowledge of the positions of positive and negative numbers in the number system can be used to calculate intervals across zero. • Negative numbers are used in coordinate and graphing contexts. **Common structures and the part-part-whole relationship** • Mathematical relationships encountered at primary level are either additive or multiplicative; both of these can be observed within the structure of part–part–whole relationships. • Problems in many different contexts can be solved by adding together the parts to find the whole. Different strategies can be used to calculate the whole, but the structure of the problem remains the same. • If the value of the whole is known, along with the values of all but one of the parts, the value of the missing part can be calculated. Different strategies can be used to calculate the missing part, but the structure of the problem remains the same. • Problems in many different contexts have the 'missing-part' structure.	two numbers with two or more digits. • Multiplication where one of the factors is a composite number can be carried out by multiplying one factor and then the other factor. **Division: dividing by two-digit divisors** • Any two- or three-digit dividend can be divided by a two-digit divisor by skip counting in multiples of the divisor (quotient < 10); these calculations can be recorded using the short or long division algorithms. • Any three- or four-digit dividend can be divided by a two-digit divisor using the short or long division algorithms (including quotient ≥ 10). • When there is a remainder, the result can be expressed as a whole-number quotient and a whole-number remainder, as a whole-number quotient and a proper-fraction remainder, or as a decimal-fraction quotient.
Science	**Electricity** • **Know how to draw simple circuit diagrams** • **Know the recognized symbols for a battery, bulb, motor, buzzer and wire**	

	• **Know how to predict whether components will function in a given circuit, depending on whether or not the circuit is complete; whether or not a switch is in an on or off position; and whether or not there is a cell to provide electrical current to the circuit** • Know that voltage is a measure of the power of a cell to produce electricity; it is a measure of the 'push' of electric current, **not** the size of the electric current • Know that as the number and voltage of cells in a circuit increases, the brightness of a bulb or the volume of a buzzer will increase (though too high a voltage may 'blow' the bulb or buzzer) • Know that two bulbs in a circuit can be wired up to create a series circuit or a parallel circuit; if one bulb blows in a series circuit the other will not shine as the circuit has been broken; in contrast, if one bulb blows in a parallel circuit (see diagram below), there will still be a complete circuit for the other bulb so it will continue to shine; use this knowledge to explain the advantages of using parallel circuits (e.g. in the lighting in homes)
Humanities (History & Geography)	**The North and the South Pole** • Know that the polar regions extend from the North pole to the Arctic Circle at 66.5º north latitude and from the South Pole to the Antarctic Circle at 66.5º south latitude. • **Know that Antarctica is a continent because there is a land mass below the ice; the Arctic is <u>not</u> a continent as there is no land beneath the ice; however, the Arctic circle reaches out to include the northern part of other land masses** • Know that there are deserts at the North Pole and the South Pole called the Arctic Desert and Antarctic Desert respectively; this is because rainfall is exceptionally limited in both of these places; the Antarctic Desert is the largest Desert on Earth • Use digital maps to evaluate the size of Antarctica relative to other continents • **Know that the polar regions are dominated by ice-sheet and tundra regions** • **Know that the tundra is characterized by permafrost, a layer of soil that is frozen all year round** • **Know that animals and plants are adapted to their environment** • Know that Norway, Sweden, Finland, Russia, the United States (Alaska), Canada, and Denmark (Greenland)are the countries located in the Arctic Circle and identify these on a map. • **Know that the sea ice of the Arctic Ocean changes in the total area it covers through the year and that it is slowly diminishing over time as one of the major effects of climate change; know that this change, if it continues, will cause sea levels to rise threatening lives and major cities around the world**

Art & D&T	**Electrical systems: Steady hand game** ● Explain simply what is meant by 'form' (the shape of a product) and 'function' (how a product works). ● State what they like or dislike about an existing children's toy and why. ● Learn about skills developed through play and apply this knowledge in a survey of one or more children's toys. ● Identify the components of a steady hand game. ● Design a steady hand game of their own according to their design criteria, using four different perspective drawings. ● Create a secure base for their game, with neat edges, that relates to their design. ● Make and test a functioning circuit and assemble it within a case.
RE	**Creation and science: conflicting or complementary?** Make sense of belief: ● Identify what type of text some Christians say Genesis 1 is, and its purpose ● Taking account of the context, suggest what Genesis 1 might mean, and compare their ideas with ways in which Christians interpret it, showing awareness of different interpretations Understand the impact: ● Make clear connections between Genesis 1 and Christian belief about God as Creator ● Show understanding of why many Christians find science and faith go together Make connections: ● Identify key ideas arising from their study of Genesis 1 and comment on how far these are helpful or inspiring, justifying their responses ● Weigh up how far the Genesis 1 creation narrative is in conflict, or is complementary, with a scientific account, giving good reasons for their views.
PSHE	**Families and friendships (attraction to others; romantic relationships; civil partnership and marriage)** ● what it means to be attracted to someone and different kinds of loving relationships ● that people who love each other can be of any gender, ethnicity or faith

	• the difference between gender identity and sexual orientation and everyone's right to be loved • about the qualities of healthy relationships that help individuals flourish • ways in which couples show their love and commitment to one another, including those who are not married or who live apart • what marriage and civil partnership mean e.g. a legal declaration of commitment made by two adults • that people have the right to choose whom they marry or whether to get married • that to force anyone into marriage is illegal • how and where to report forced marriage or ask for help if they are worried **Safe relationships (recognising and managing pressure; consent in different situations)** • to compare the features of a healthy and unhealthy friendship • about the shared responsibility if someone is put under pressure to do something dangerous and something goes wrong • strategies to respond to pressure from friends including online • how to assess the risk of different online 'challenges' and 'dares' • how to recognise and respond to pressure from others to do something unsafe or that makes them feel worried or uncomfortable • how to get advice and report concerns about personal safety, including online • what consent means and how to seek and give/not give permission in different situations
PE	This half term Etal Class will go swimming on a Wednesday afternoon. We will have PE with NUFC on a Thursday- children should come to school in their PE kit on those days. We will also run the daily mile every afternoon!
Computing	**Computing systems and network- communication** In this unit, the class will learn about the World Wide Web as a communication tool. First, they will learn how we find information on the World Wide Web, through learning how search engines work (including how they select and rank results) and what influences searching, and through comparing different search engines. They will then investigate different methods of communication, before focusing on internet-based communication. Finally, they will evaluate which methods of internet communication to use for particular purposes.

Music	**Social theme: How Does Music Bring Us Together?** **Musical spotlight: Developing Melodic Phrases** This unit celebrates a wide range of musical styles. The clearly sequenced lessons support the key areas of the English Model Music Curriculum; Listening, Singing, Playing Composing and Performing.
French	

Notices

Homework is set on Fridays for pupils to hand in the following Thursday. Homework diaries should be signed each week by a parent or guardian and pupils are expected to record independent reading in their homework diaries. Each week, a reading question will be set on padlet for children to respond to: https://padlet.com/rebeccagleghorn/etal-castle-class-2023-24-ywgpq9ztg0daxjf9

Useful Links

Maths:

http://www.bbc.co.uk/bitesize/ks2/maths/
http://www.topmarks.co.uk/maths-games/7-11-years
https://play.prodigygame.com/
https://play.ttrockstars.com/ttrs/dashboard

English:

http://www.topmarks.co.uk/english-games/7-11-years/spelling-and-grammar
https://www.spellingshed.com/en-gb/index.html
ReadTheory | Free Reading Comprehension Practice for Students and Teachers