



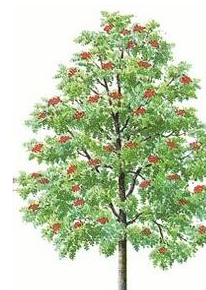
Curriculum Information

Sycamore Class, Rowan Class & Larch Class

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Our topic for this term is ***Spy Kids- Home alone***

This includes:

Geography – Local study of the River Coquet

Children will begin by explain the features of the water cycle and why it is a closed cycle. Then they will continue by using atlases locate rivers both in the UK and around the world. They will continue to practise their map reading skills by using four and six figure grid references to give accurate locations on a map and interpret Ordnance survey maps, including using a key. They will understand the features and compare these along the different points of a river's course. The children will be able to describe how a river can change over time. Children will end their work by observing, measuring and sketching maps of a local river, including the features of a river's course.

History- Local study of Cragside / Hydroelectricity

They children will begin by investigating the history of Cragside House and Lord William Armstrong. They will follow on by investigating Sir Armstrong love of energy and water and how he constructed the world's first hydroelectric power station, using an array of hydraulic mechanisms to operate labour-saving devices in the house and also how his machinery is used on the London Tower bridge.

Design and Technology – Structures: Building Bridges

Children will learn about how simple bridges are constructed using beams, pillars or piers, then make and test beam bridge designs. Then, they will learn how trusses are used in bridge design to spread out compression forces. They may then either build and test model truss bridges, or use software to explore how truss bridges may be constructed. Following on, the children will understand how arches are used to spread and redirect compression forces acting on bridges. They will then build and test model arch bridges. Next they will learn about how suspension bridges use tension to support bridge decks spanning large distances. The children will end by developing criteria for a bridge design and then either design a bridge according to their criteria, or generate more criteria for a range. They will then build and test their designs.

Science – Light

Children will learn how to describe natural and man-made light sources, distinguish between these and things which reflect light, and learn how light travels in a straight line and creates shadows. Next they will understand that we need light to see, and how eyes work, by drawing diagrams and using natural materials to create a model of this. They will then move on to investigate how light can change direction when it is reflected, then conduct practical reflection investigations. They will hypothesise what characteristics reflective surfaces will have, then conduct reflection investigations where their ideas will be explored. Children will consider what questions could be asked about shadows and how they may be changed. They will then conduct practical shadow investigations where they will test their ideas and explain their findings. They will finish by describing differences between shadows and reflections in their own words, then ask and answer questions to show what they have learned during this, and previous lessons.

Electricity

Children will start by recapping their prior knowledge regarding electricity and circuits, then identify, discuss or test to find differences between series and parallel circuits. They will move onto suggesting ways in which changing circuits could affect the brightness of a bulb or the speed of a motor and investigating these ideas through practical investigations. Children will learn about a variety of symbols used in circuit diagrams and use these symbols to create diagrams of circuits. To finish this topic, the children will design a series of investigations to test ways in which wires of different lengths, thicknesses and materials may affect the brightness of a bulb.



Computing – Creating a spy game

The children will begin by importing a sprite and use script to control its movements, debugging any issues that arise. Then they will practise changing backgrounds and costumes. The children will then move onto understanding how to add another sprite and use the x and y position to control their movement. To finish, the children design and play a game where the sprites change colour when they touch each other. The children will play each other's spy games and critically review them.

Other subjects:

<u>P.E.</u>	Basketball and Hockey (<i>School</i>)
<u>R.E.</u>	Christianity: Sim's / Diff's within the Christian faith globally
<u>P.S.H.E.</u>	Feelings and Emotions
<u>French</u>	Classroom instructions, greetings, days of the week and numbers.
<u>Music</u>	Livin' on a Prayer

English: - Faraway Fiction (*Kensukes Kingdom - Michael Morpurgo*)
- Instructions and Explanations

English involves the development of speaking and listening, drama, reading, comprehension, grammar and writing skills. Children will have a variety of opportunities to develop and demonstrate mastery within their reading and comprehension both in the classroom and for some during weekly guided reading sessions. They will also be able to apply their skills across other areas of the curriculum during their topic work.

During their English lessons, children will be working from cross curricular units of work, each of which will last between 2-4 weeks. Each term, children will experience a range of narrative, non-fiction and poetry texts.

Mathematics:

Children will develop and demonstrate mastery in their knowledge, skills and understanding within key areas in Mathematics: number and place value, addition and subtraction, multiplication and division, fractions, decimals and percentages, measure, properties of shape (geometry) and statistics. The children's ability to 'reason' will be developed throughout all of their mathematical work as they are encouraged to explain how they have reached solutions to problems.

Homework & Spellings

Weekly Tasks: Every Monday, your child will be set two homework tasks: one English and one Maths. They will have until the following Monday to complete them. Their homework tasks may be written comprehension, punctuation and grammar, written pieces or online tasks from Sumdog or School 360 and they will be based upon what they have been learning in class in order to consolidate their new knowledge, skills and understanding.

Spellings: Spellings will be set and tested each Monday.

Mental Maths: J2Blast on School360 should be used by the children on a weekly basis to develop their times tables skills. Times tables and mental maths skills will then be tested on a weekly basis.

Reading: Guided Reading (for some) will take place on a weekly basis (Larch: Monday/Rowan: Thursday /Sycamore: Friday).

****Please ensure that you and your child comment in their reading record on a regular basis.**

Also, it is important that your child reads a range of literature (magazines, books, newspapers) for at least one hour per week so please encourage them to use both the school library and local library.

Planners: The children are provided with planners from Year 5 to support their organisational skills in preparation for High School. They will record any homework and important dates in these. We ask that you sign their planner every week, it is also available to communicate with their teacher.

Pencil cases: In preparation for High School, where pupils need all of their own essential equipment to take with them to every lesson, we would like to encourage all children to have a pencil case at school. As a minimum, each child's pencil case should contain: two black biro pens, a pencil and sharpener, a ruler and a rubber.

Wellies and outdoor shoes: As we head towards the winter months we ask that all children have a pair of named wellies or outdoor shoes available in school at all times.