



# Curriculum Information

Sycamore, Rowan and Larch

September - October 2019

Produced by:

Mrs C. Murdy, Miss C. Back, Mrs E. Rutherford and Mrs J. O'Connell

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Our topic for this half term is *SpyKids - Home Alone*

***This includes:***

## **Geography - Local study of the River Coquet**

Children will begin by explaining the features of the water cycle and why it is a closed cycle. They will use atlases to 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 the use of a key. They will understand the key features of rivers and compare these along the different points of a river's course. The children will also explore how a river can change over time and consider what may cause this. Children will end their work by observing, measuring and sketching maps of a local river, including the key features of its course.

## **History - Local study of Cragside / Lord Armstrong**

Children will begin by investigating the history of Cragside House and Sir William Armstrong. They will follow on by investigating Sir Armstrong's 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, making connections to how his machinery is also used on the London Tower bridge.

## **Design and Technology - Structures: Building Bridges**

Children will learn how simple bridges are constructed using beams, pillars or piers before progressing to make and test beam bridge designs. They will learn how trusses are used in bridge designs 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 explore how arches are used to spread and redirect compression forces acting on bridges. They will then build and test model arch bridges. Finally, they will learn about how suspension bridges use tension to support bridge decks spanning large distances. The children will end the unit of work by drawing upon their new knowledge from the above to design, build and test a bridge design against a given, specific criterion.

## **Science - Light**

Children will learn of multiple ways to classify natural and man-made light sources, distinguish between these as well as items and materials that reflect light. They will investigate how light travels in a straight line creating shadows as well as how light can change direction when it is reflected. When investigating, they will need to hypothesise what characteristics reflective surfaces will have. Within this unit of work they will also look at how light is needed to see, and consider how our eyes work. Children will then consider what questions could be asked about shadows, how shadows may change as well as what causes this. They will then conduct practical shadow investigations where they will test their ideas and prove their findings. They will finish the unit of work by exploring the similarities and differences between shadows and reflections.

## **Science - Electricity**

Children will start by recapping their prior knowledge regarding electricity and circuits, then identify, discuss and test to find differences between series and parallel circuits. They will move on to suggesting ways in which changing circuits could affect the brightness of a bulb or the speed of a motor, investigating these ideas through practical activities. Children will learn about a variety of symbols used in circuit diagrams and use these symbols to create diagrams of circuits. To finish this unit of work, 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 - E Safety**

The children will begin by investigating the different types of online bullying and discussing the similarities and differences to bullying in person. They will then move on to creating strategies to deal with cyberbullying. Children will learn how to look in the address bar of a website to check for security and identify the lock symbol in an address bar. They will investigate how to find a link to a privacy policy and how to identify warning signs that a website might not be secure. To finish children will create an online quiz to share their knowledge and help other children to understand the importance of being safe online.

## **Computing - Word processing/Publisher**

The children will begin by using Word to format images before moving onto using different formatting tools to change and create an effective layout. They will move onto using spell check to check their work as well as learn how to insert and format a table.

## **Other subjects:**

**P.E.** Rugby Coaching (Tues) and Cricket (Fri)

**P.S.H.E.** Feelings & Emotions / Valuing Differences

**R.E.** Islam: Does a belief in Akhirah help Muslims lead good lives?

**Pupil Parliament** How laws are made in Britain and why they are important

**French** Classroom Instructions and Greetings

**Music** Charanga: Livin' on a Prayer / Happy

**English: Faraway Fiction: Kensuke's Kingdom**

**News Reports with persuasive and informative speech: Pupil Parliament**

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 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.

**Mathematics: Place Value and Calculating**

Children will develop and demonstrate mastery in their knowledge, skills and understanding of place value and calculating this half term. They will read, write order and compare numbers up to at least 1,000,000 (Year 5) / 10,000,000 (Year 6) whilst determining the value of each digit and rounding them to the nearest 10, 100, 1000, 10,000 and 100,000. They will also use negative numbers in context, calculating intervals across zero as well as read Roman numerals to 1000 (M).

When calculating, children will use formal written methods, adding and subtracting whole numbers with more than 4 digits (Year 5 and Year 6) as well as multiplying and dividing numbers with up to 4 digits by a 2-digit whole number (Year 6). The children's ability to 'reason' will be developed throughout all of their mathematical work as they are continuously encouraged to explain, justify and deepen their thinking.

**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 School 360. They will be based upon what they have been learning in class in order to consolidate their new knowledge, skills and understanding. Details of weekly homework tasks can be found in children's planners as well as on the school website within your child's class page.

**Spellings:** Spellings will be set and tested each Monday.

**Mental Maths:** J2Blast on School360 and Times Tables Rockstars should be used by the children on a weekly basis to develop their fluency and times tables skills. Children have their own usernames and passwords for accessing both programmes. Metal maths skills will be tested on a weekly basis.

**Reading:** Guided Reading will take place on a weekly basis.

*\*\*Please ensure that both yourself and your child comment regularly in the reading record.*

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:** Children will have their own planners to record homework, PE days and important dates. We ask that you sign their planner every week, it is also available to communicate with your child's teacher.

**Pencil cases:** 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, this being in preparation for High School.

**PE Kits:** Children must have both an indoor and outdoor PE Kit in school on a Tuesday and Friday along with appropriate footwear. The school's expectations of these kits can be found in your child's planner on Page 5. Where children are not able to participate in their allocated PE lesson, they will join another KS2 class and be given work to complete.

**Wellies and outdoor shoes:** Please ensure that your child has a pair of named wellies or outdoor shoes available in school at all times for playtime as well as outdoor learning activities.

*Please also use the school website to keep up to date with your child's learning. Teachers regularly update their class pages with photographs and important information for parents.*

