YEAR 6 CURRICULUM
SPRING TERM

‘BALLOON BUSTER’

Longhill Primary School Year 6 Spring Curriculum

Theme – Balloon Blaster

Driving the Theme:

D and T
As a designer we will explore the use of axles and wheels in vehicles and. Along with our work on forces in Science we will explore balances forces.
Programmes of Study
Design • Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups. • Generate, develop, model and communicate their ideas through discussion, and diagrams, pattern pieces and computer aided design. **Make** • Select from and use a wider range of tools and equipment to perform practical tasks accurately. • Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities. **Evaluate** • Investigate and analyse a range of existing products.

- Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.
- Understand how key events and individuals in design and technology have helped shape the world.

Technical Knowledge

- Understand and use mechanical systems in their products, e.g. gears, pulleys, cams, levers and linkages.

We will use our understanding of design and science to take part in the Bottle Car Race Challenge.

Linked to our work in history involving conflict in the past, we will explore the use of catapults and examine the mechanisms involved. We will take part in the Plastic Spoon Catapult Challenge to see how far we can propel a chocolate Malteser.

We will explore how cams turn rotary motion into linear movement. We will experiment with different forms, create a crawling caterpillar with segment on its own cam and use this knowledge to design and make our own toy for younger children.

We will explore levers and discover how to create a range of movements y changing the pivot point. We will use this knowledge to create our very own Flappy Bird toy.

We will discover pulley power and how heavy loads may be lifted with little energy using a pulley. We will design our own pulley mechanisms and combine them with other machines.

We will explore the use of gears and gear trains. We will discover how to gear up to change slow motion into fast and gear down to change fast motion into slow. We will also discover linked to our work on forces in science that there is always a trade off when using machines. Gearing down may create more speed but the trade off is less force.

Finally we will explore the main types of simple machines: inclined planes, levers, pulleys, wedges, and screws. We will find out the uses of each of them and we will take part in the Balloon Blaster Challenge, where we will be required to make a device that uses all of these machines in order to pop a balloon.

Throughout all of our challenges and tasks we will need to consider the purpose of our work and design, make and constantly evaluate and refine our products so that they improve over time.

We will also use a range of practical skills and improve the presentation of our products.

Writing	Reading	SPaG
Explanation text Letter Instructions to be written in CP	One Spies session followed by two Mini Missions a week. **<u>Domains for SPIES</u>** **S**- Share the mission: objective for the lesson **P**- Prove the text - 2a: Give and explain the meaning of words in context. **I**- Investigate Further- 2b: Retrieving and recording answers from text. **E**- Extend the learning- 2d: Inference questions to explain and justify with evidence from the text. **S**- Looking at other domains: Eg 2c- summarise main ideas 2e- Predict what might happen from detail and implied 2f- Identify and explain how information/narrative content is related and contributes to meaning as whole. 2h- Make comparisons within the text 2g- Identify/ explain how meaning is enhanced through choice of words/phrases. **<u>Mini Mission</u>** <u>Both mini missions will focus on the same domain selected form the last **S section** of SPIE**S**</u>. One of the mini missions will be completed during a reading session and the other one will be done during continue provision.	The difference between vocab and structure typical of informal speech and that appropriate for formal speech and writing or the use of **subjunctive** forms. How words are related by meaning as synonyms and antonyms. Use of the **passive** to affect the presentation of information in a **sentence**. Use of the semi colon, colon and dash to mark the boundary between independent **clauses** Use of the colon to introduce a list and use semi colons within lists. **Punctuation** of bullet points to list information. How **hypens** can be used to avoid ambiguity. Recognise the **subject** and **object** of a sentence.

	<u>Big Read Text</u> London Eye Mystery	

Science

Working Scientifically

During years 5 and 6 pupils should be

- Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.
- Taking measurements using a range of scientific equipment with increasing accuracy and precision, taking repeat readings when appropriate.
- Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs
- Using test results to make predictions to set up further comparative and fair tests.
- Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.
- Identifying evidence that has been used to support or refute ideas or arguments.

Properties and change of materials – through lots of investigation as knowledge taught in year 5

- To know the similarities and differences between everyday objects and be able to group them based on their properties and results of testing.
- To know that some materials are more suitable for particular uses than others based on testing and conclusions.
- To know that some materials will dissolve in liquid to form a solution, and know how to recover a substance from a solution.
- To know how mixtures might be separated, including through filtering, sieving and evaporating.
- To know and explain the difference between reversible and irreversible changes.
- To know that dissolving, mixing and changes of state are reversible changes.
- To know that some changes result in the formation of new materials and that this kind of change is not usually reversible. EG. Burning or mixing acid with bicarb.

Music

Pupils should be taught to:

- play and perform in solo and ensemble contexts, using their voices and playing musical instruments with increasing accuracy, fluency, control and expression
- improvise and compose music for a range of purposes using the inter-related dimensions of music
- listen with attention to detail and recall sounds with increasing aural memory
- use and understand staff and other musical notations
- appreciate and understand a wide range of high-quality live and recorded music drawn from different traditions and from great composers and musicians
- develop an understanding of the history of music.

Charanga

A new year Carol

Happy

Art

Spring 1

Spring 1

Collage

Can select with thought, different materials from the teachers resources, considering content, shape, surface and texture

Can select, sort and modify by, cutting, tearing with care before adding other marks and colour to represent an idea

Can sort and use according to specific qualities, e.g. warm, cold, shiny, smooth

Can engage in more complex activities, e.g. control surface decoration of materials with clear intentions

Can use paste and adhesives to select and place cut and torn shapes onto a surface to convey an idea

Spring 2

Textiles

Can select organise and use materials such as threads, cottons, wool, raffia, paper strips and natural fibres to make a simple craft product

Can sort, select and control colour, line, shape, texture to make and control fabric and textile surfaces from the study of a craft artist

Can collect, deconstruct, discuss and use fabrics and cloth to reassemble new work

Can cut threads and fibres, stitch, sew together and surface decorate using adhesive and bead or buttons
Can weave in a simple loom and build constructed textile surfaces

Modern Foreign Languages

1. C'est delicieux - Food
2. Je vais aller en vacances! - Holidays

History

Continuous Provision – link with inventions

Chronological Events

Talk in depth about the theme in relation to other historical events and the impact of these, linking to modern day.

Historical Enquiry

Identify significant events, make connections, draw contrast and analyse trends

Analyse and evaluate the impact of significant people/events in history.

A detailed study of a particular famous person and their historical legacy from at least two different points of view.

PE	RE	PSHCE- Jigsaw
The PE HUB **Spring 1** **Gymnastics** • Perform increasingly complex sequences • Combine own ideas with others to build sequences • Compose and practise actions and relate to music • Show a desire to improve competency across a broad range of gymnastics actions **Netball** • Work as a team to improve group tactics and gameplay • Play within the rules using blocking skills for shots and passes • Develop defensive skills **Spring 2** **Netball** • Work as a team to improve group tactics and gameplay • Play within the rules using blocking skills for shots and passes • Develop defensive skills	**Discover RE** **Spring 1** **Theme** Beliefs and Meaning **Concept:** Incarnation **Key Question:** Is anything every eternal? **Religion:** Christianity **Spring 2** **Theme** Easter **Concept:** Gospel **Key Question:** Is Christianity still a strong religion 2000 years after Jesus was on Earth? **Religion:** Christianity **Additional Optional Christianity Units: (Any term)** **Theme** Covenant **Concept:** Salvation	**Dreams and Goals** I know my learning strengths and can set challenges but realistic goals for myself (e.g. one in-school goal and one out-of-school goal). I can work out the learning steps I need to take to reach my goal and understand how to motivate myself to work on these. I can identify problems in the world that concern me and talk to other people about them. I can work with other people to help make the world a better place. I can describe some ways in which I can work with other people to help make the world a better place. I know what some people in my class like or admire about me and can accept their praise. **Healthy Me** I can take responsibility for my health and make choices that benefit my health and well-being. I know about different types of drugs and their uses and their effects on the body particularly the liver and heart. I know why some people join gangs and the risks this involves.

Cricket • Apply with consistency standard cricket rules in a variety of different styles of games • Attempt a small range of recognised shots in isolation and in competitive scenarios • Use a range of tactics for attacking and defending in the role of bowler, batter and fielder	**Key Question:** How did Jesus create a "New Covenant" and what does that mean to Christians today? **Religion:** Christianity	I understand what it means to be emotionally well and can explore people's attitudes towards mental health/illness. I can recognise stress and the triggers that causes this and I understand how stress can cause alcohol misuse.

Computer Science

Mr Andrews Online Curriculum: How to...? (https://mrandrewsonline.co.uk/how-to/)
Can be linked to how to create a controllable vehicle (like the given example) or can be linked to anything that requires a guide book.

Information Technology

- Plan a multi-scene animation including characters, scenes, camera angles and effects.
- Edit a stop-go animation to improve the quality of the animation using onion skinning feature.
- Edit/refine a movie to add special effects, text, sound effects, graphics and backing track.

Digital Literacy

- Evaluate digital content and explain how to make choices from search results.
- Explain how search engines work and how results are selected and ranked.

Try New Things

Continuous Provision

Make a catapult
Race a Car