**Pioneers Class – Autumn Term 2 2017-2018**

*Loving, Learning, Living*

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| Writing•Choose the appropriate form of writing using the main features identified in reading. • Plan, draft, write, edit and improve.• Interweave descriptions of characters, settings and atmosphere with dialogue.• Write sentences that include modal verbs.• Write sentences that include a mixture of active and passive voice • Using commas to clarify meaning or avoid ambiguity in writing.  | Reading• Ask questions to improve understanding.• Draw inferences such as inferring characters’ feelings, thoughts and motives• Predict what might happen from details stated and implied.• Summarise the main ideas drawn from more than one paragraph• Retrieve and record information from non-fiction.• Distinguish between fact and opinion. |
| Maths• Solve problems involving multiplication and division• Multiply multi-digit numbers up to 4 digits by a two-digit whole number• Divide numbers up to 4 digits by a two-digit number• Perform mental calculations, including with mixed operations and large numbers.• Identify common factors, common multiples and prime numbers.• Establish whether a number up to 100 is prime• Use knowledge of factors and multiples, squares and cubes. | .DT•Create circuits using electronics kits that employ a number of components• Write code to control and monitor models or products. • Design with the user in mind, motivated by the service a product will offer (rather than simply for profit).• Make products through stages of prototypes, making continual refinements.• Create innovative designs that improve upon existing products.• Evaluate the design of products so as to suggest improvements to the user experience |
| Computing•Set IF conditions for movements.• Change the position of objects between screen layers (send to back, bring to front).• Set events to control other events by ‘broadcasting’ information as a trigger.• Use IF THEN conditions to control events or objects.• Select appropriate applications to devise, construct and manipulate data and present it in an effective and professional manner. | Science• Use test results to make predictions to set up further comparative and fair tests.• Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit.• Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches.• Use recognised symbols when representing a simple circuit in a diagram |
| Music• Sing or play from memory with confidence.• Perform solos or as part of an ensemble.• Sing or play expressively and in tune.• Hold a part within a round. | Languages• Show confidence in reading aloud, and in using reference materials.• Write short texts on familiar topics.• Refer to recent experiences • Use dictionaries or glossaries to check words.• Understand the main points and opinions in spoken passages.• Give a short prepared talk that includes opinions. |
| Art•Use the qualities of materials to enhance ideas.• Spot the potential in unexpected results as work progresses.• Enhance digital media by editing (including sound, video, animation, still images and installations). | PHSE• Reflect on and celebrate their achievements, identify their strengths, areas for improvement, set high aspirations and goals. |
| RE• Explain how religious beliefs shape the lives of individuals and communities.• Explain the practices and lifestyles involved in belonging to a faith community.• Explain some of the different ways that individuals show their beliefs.• Explain their own ideas about the answers to ultimate questions. • Explain why their own answers to ultimate questions may differ from those of others. • Express their own values and remain respectful of those with different values. | PE• Perform expressively and hold a precise and strong body posture.• Perform and create complex sequences.• Express an idea in original and imaginative ways.• Plan to perform with high energy, slow grace or other themes and maintain this throughout a piece. •Hold shapes that are strong, fluent and expressive.• Include in a sequence set pieces, choosing the most appropriate linking elements.• Vary speed, direction, level and body rotation during floor performances. |

**Game On!**

We will be giving Santa a helping hand by designing and coding a computer game.

Can you design a game using buzzers, switches and bulbs?

Can you interweave character, setting and plot in an adventure story where your character gets stuck inside a computer?

Can you design and code a computer game with IF THEN conditionals and events that trigger other events?

Can you use all of the features of an effective advert to persuade children to play your game?

Can you write a set of detailed instructions, informing children how to play your game?

Can you use digital media to edit and create artwork and packaging for your game?

Time to Shine