



Year 4 Curriculum Term 1

Make some Noise

English

We will begin the year reading a beautiful picture book called 'Gregory Cool' by Caroline Binch. This touching text tells the story of a young, cool city boy who is miserable when he arrives in Tobago to visit relatives. We find out what happens when he gets to know the island and its people. The children will explore the settings in the story, learning about how the setting is culturally different to where they live. They will learn to use a varied and rich vocabulary to describe the settings including verbs, adverbs, expanded noun phrases and figurative language such as similes and metaphors. We will explore the settings further through art and use our artwork to help generate ambitious vocabulary. The children will learn to use fronted adverbials and prepositions in setting descriptions to make their writing varied and interesting. We will then move on to learn about writing recounts. We will write diaries and letters in role as characters from the story. The children will learn to show viewpoint in their recounts and to use emotive language within these.

The next text that we will read is a children's science fiction novel called 'The Iron Man' by Ted Hughes. Described by some as a modern fairy tale, this story tells of the unexpected arrival in England of a giant 'metal man' of unknown origin. Whilst reading this text, we will explore character descriptions. The children will learn to use ambitious descriptive language (adverbs, verbs, expanded nouns phrases and figurative language (similes, metaphors and personification) to describe characters from the story including, of course, the mighty Iron Man! We will learn how to use subordinating conjunctions in complex sentences and coordinating conjunctions in compound sentences to both extend and explain our descriptive ideas about the characters.

Place value – order and compare numbers beyond 1000

Step 1: Understanding that 10 hundreds are equal to 1 thousand, 10 tens are equal to 1 hundred and 10 ones are equal to 1 ten

Step 2: Finding 1000 more or less than a given number

Step 3: Comparing and ordering 4-digit numbers

Step 4: Regrouping 4-digit numbers flexibly

Rounding, estimating and magnitude

Step 1: Estimate number magnitude

Step 2: Identify and estimate numbers using different representations

Step 3: Rounding numbers to the nearest ten, hundred and thousand

Step 4: Comparing and rounding numbers to the nearest ten, hundred and thousand

Securing addition and subtraction mental fluency

Step 1: Mental strategy comparison – considering appropriateness and efficiency

Step 2: Developing estimation to support calculation

Step 3: Extending regrouping 'Think 100' and 'Think 1000' to adding 3- and 4-digit numbers

Step 4: Introducing equal sum as a mental strategy

Step 5: Regrouping the minuend (the number being reduced) for subtraction

Step 6: Introducing equal difference for mental subtraction Step 7: Mixed addition and subtraction practice

Securing formal written addition and subtraction fluency

Step 1: Formal addition method with no regrouping (thousands, hundreds, tens and ones)

Step 2: Formal addition method with regrouping in hundreds, tens and ones

Step 3: Formal addition method with regrouping in hundreds, tens and ones causing a further thousand

Step 4: Finding missing numbers in formal written addition



	Step 5: Revisiting formal written subtraction (decomposition) Step 6: Formal written subtraction with regrouping of thousands (decomposition) Step 7: Missing number and written subtraction problems Step 8: Mixed practice Counting in multiples of 6, 7, 9, 25 and 1000 Step 1: Understand that counting up in multiples is also repeated addition Step 2: Extend counting in multiples knowledge to 25s Multiplication and division facts – times tables Step 1: Creating and regrouping arrays for multiplication (distributive law) Step 2: Learning multiplication facts through building arrays (developing recall) Step 3: Rehearsing and recalling multiplication facts; making links and spotting patterns Step 4: Rehearsing division facts Step 5: Laws of divisibility to help with division facts Step 6: Strategies for calculating multiplication facts
R.E. <u>Sikh Rites of Passage</u> In this unit, we will learn: • Who Sikhs are and what they believe • About the naming ceremonies of Sikh children • About the Sikh baptismal ceremony of Amrit • About Sikh marriage ceremonies • About Sikh funeral ceremonies and their belief on life after death	PSHE Our Term 1 focus for PSHE is, ‘One Childhood, One Chance.’ Our learning on these days will cover: • The Chilton Culture – the children will learn about the new ‘Chance to Change’ card and Stop and Share. • The Chilton Way rules - Be safe, Be respectful and Be ready. During this time class rules will also be compiled. • Chilton Values - Respect, Kindness, Equality and Courage • Using the Regulation Station – we will learn about the things in the regulation station that can help us e.g. a body map, breathing cards, fidgets, calming tools. • Social skills - reminders of using manners (including dinner table manners) and greeting people around the school. • Responsibility – the children will learn that they are responsible for their own behaviours and have responsibility for the things in their environments.
Art: <u>Print Making/Collage</u> In this unit, we will learn: • To be able to make printing blocks e.g. coiled string glued to a block	Music: We will start the year by learning about the science of sound focusing on the following: • Acoustics, recording technology.



• To be able to print onto different materials using at least 4 different colours • - To be able to ensure collage work is precise • To use mosaic & montage		• Using audio recording software • Audio manipulation – looping etc. • Playing over prerecorded parts • Discovering sound through recording: pitch vs noise; amplitude; frequency; octave relationship.
French: During Term 1, we will be revisiting and building confidence with numbers up to 10 and 20, as well as recapping the months of the year. We will also begin exploring some exciting French culture and vocabulary, learning the names of famous places and objects associated with France. Children will become familiar with vocabulary such as France, la Tour Eiffel, l'Arc de Triomphe, le Louvre, la Seine and l'euro. Through songs, repetition and fun activities, we will develop the children's confidence in recognising and using these words in French.		P.E: In Term 1, we will focus on developing and applying a range of multi-skills. We will develop their throwing and catching techniques using a variety of movements, as well as their ability to strike a ball with control, accuracy and power. We will also explore how to move into and create space, before combining these skills effectively in a range of game situations.
Thematic Curriculum		
Title	Make Some Noise!	
Big Question	Can sound travel?	
Golden Thread	Being imaginative and exploring	
Prior Knowledge	Year 4 is the first time the children will learn specifically about sound. However, in being imaginative and exploring throughout year 3 the children learnt about light, as well as forces. They will be able to link some of their knowledge, in particular the disciplinary knowledge used when conducting investigations to what they learn within their science unit about sound.	
Blurb overview	In this unit, learners will be set a task by a rock band to support their concert! They will learn about how sounds are made, how it travels and explore through investigations and experiments. They will be asked to consider accessibility for their concert, thinking about ear protection and those that are hard of hearing. The children will consider noise pollution. Throughout the unit, they will explore different artists and genres of music and find out about famous scientists involved with sound.	
Celebration of Learning	Celebration of learning: Invite parents in for a sound workshop. Different stations teaching parents how sounds are made/changed	
Oracy End Point:	Talk partner focus: Eye contact, facial expressions and gestures to show clear communication. Importance of body language in conversation. Link to hearing impairment and clear communication.	Physical: Deliberately select movement and gesture when addressing an audience Linguistic: Carefully consider the words and phrasing they use to express their ideas and how this supports the purpose of the talk Cognitive: Reach shared agreement in discussions Social and emotional: Use more natural and subtle prompts for turn taking
Science		



Substantive Knowledge		Disciplinary Knowledge	
•To know how sounds are made and understand that these create vibrations in the air. •To know that vibrations from sounds, travel through a medium to the ear. •To know how to find patterns between the pitch of a sound and features of the object that produced it. •To know that there is a pattern between the volume of a sound and the strength of the vibrations that produced it. •To know that sounds get fainter as the distance from the sound source increases. -to know about the work of past and present scientists: Past - Heinrich Hertz and Ernst Mach Present - Jaap Haartsen		- begin to look for naturally occurring patterns and relationships and decide what data to collect to identify them -make simple predictions, of which some will be based on prior knowledge or experiences - learn how to use new equipment, such as data loggers, appropriately -making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers -gathering and recording data -recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables -collect data from their own observations and measurements, using notes, simple tables and standard units -using results to draw simple conclusions, -using straightforward scientific evidence to answer questions or to support their findings. -with help, look for changes, patterns, similarities and differences in their data in order to draw simple conclusions and answer questions -suggest improvements and raise further questions	
Cultural Capital			
Cultural Knowledge: To know the works of Ernst Mach (1838-1916) and Heinrich Hertz (1857-94). Cultural experiences: To know the purpose of BSL sign language and learn some key phrases.			
Weekly Overview			
Week 1 (2 days) PSHE	PSHE Lesson 1 – In our first PSHE lesson of Year 4 the children will learn about the new Chilton Culture. They will find out about the ‘Chance to Change’ card and what a ‘Stop and Share’ is. We will discuss different ways that the children are celebrated at Chilton, such as Superstar learner cards, certificates in assembly, Over and Above cards, Gold Awards, the Kindness Cup and many more ways. We will discuss how we might earn one of these rewards. We will also discuss when we might be given a ‘Chance to Change’ card and the children will learn that these are a way of us helping them to make a positive choice to change. The children will then read a variety of scenarios and draw a picture to show what would happen/be given for each scenario. Lesson 2 – In this session the children will go over the Chilton Way rules in more detail; be safe, be ready and be respectful. They will discuss each rule in more depth and learn about how they can follow each rule and how each rule could be broken.		



Week 2 PSHE	Lesson 1 – In this lesson, we will be going over the Chilton Values – respect, courage, kindness and equality. The children will learn about what each value means and how they can show them. We will self-evaluate how strong we think we are at showing each value and use this to make a Chilton Values Top Trump card e.g. they may feel they are only a 5 in Courage but a 9 in Kindness. Lesson 2 – We will explore the Regulation Station in this lesson. We will look at what is in the station to help us regulate and learn about why we may need to use the regulation station. We will be creating some artwork for a display about the regulation station in this session. Lesson 3 – We will continue to explore the Regulation Station and look at each support item in more detail.
Week 3	SCIENCE Lesson 1 - What is sound and how do we measure it? We will explore sound by investigating what a sound is, how it is made and also how we measure sound using decibels. In our first science session, we will learn that sounds are made when an object vibrates and the vibrations travel through the air as sound waves into our ears. We will demonstrate sound waves using a slinky. We will show this in a scientific diagram. The children will find out that sound is measured in decibels. Lesson 2 - How do we hear sounds? We will learn about how our ears hear sounds and why some people need aids to help them hear. We will label a diagram of an ear, learning about the pinna, eardrum, the ossicles and the cochlea, and what each part does to allow us to hear a sound. We will find out that some people wear hearing aids or have a cochlear implant to improve their hearing.
Week 4	Lesson 1 - What patterns can you find between the strength of vibrations and volume of a sound? (over 2 lessons) We will re-introduce the meaning of volume and the children will learn the vocabulary of faint/soft/quiet and loud to describe the volume of sounds. Using a decibel meter on a tablet, the children will explore different sounds and their volume and record this in a table. Lesson 2 – Following on from lesson 1, we will look for patterns in the strength of the vibration and the volume of the sound, and make the conclusion that the stronger the vibrations, the louder the sound will be. Therefore a loud sound will have a taller wave (amplitude) and a quiet sound will have a shorter wave. We will draw a sound wave for a loud and quiet sound. We will present the volume of different sounds from the previous lesson in decibels in a pictogram or bar graph. Lesson 3 - How do we know about sound? We will learn about the past and present scientists: Heinrich Hertz and Ernst Mach and also Jaap Haartsen. Ernst Mach was an Austrian physicist and philosopher who is most famous for his study of shock waves. To this day, the speed of supersonic objects is often measured using "Mach numbers". The term was named in memory of Mach. Heinrich Hertz was a German physicist who first proved the existence of electromagnetic waves. Jaap Haartsen is a Dutch electrical engineer who invented Bluetooth. The children will choose a scientist and make a fact file about them explaining what they did, and key facts about them.
Week 5	Lesson 1 - What happens to sound as the distance from the sound source increases? (over 3 lessons) We will design and conduct an experiment which aims to find the link between the volume of a sound and the distance from the source. We will discuss how we will keep the experiment a fair test by controlling variables, and record this in our books. Lesson 2 – We will carry out our experiment to find out what happens to the volume of a sound as the distance from it increases. Whilst conducting the experiment, we will record our results in a table. Lesson 3 – Following our experiment, we will look at the results, present our findings in a bar graph and make a scientific conclusion about what we found out. We will make links between what we found out and real life situations/examples.
Week 6	Lesson 1 - How does sound travel?



	We will investigate how sound travels through different mediums, including solids, liquids and gases. In this lesson, the children will learn that sounds can travel through different media to the ear. They will explore listening to sounds through wood, water, air and string. They will hit a tuning fork and place it in water to watch the vibrations spread out through the water. They will discover that sounds travel quickest through solids and slowest through gases such as air. We will also find out what a vacuum is and learn that sound cannot travel through a vacuum. Lesson 1 - <u>How can we protect our ears from harmful sounds?</u> We will investigate practical situations where ears need to be protected and introduce sound insulation (comparing materials and their properties and how this affects the sound). In this lesson, the children will learn about ear defenders: who wears them and what do they do? We will explore concerts and construction, and also sensory differences that many people have. The children will design and make ear defenders to muffle music using everything they have learnt. Lesson 1 - <u>What else do I want to find out about sound?</u> We will have an opportunity to ask scientific questions and find the answers. We will share what we find out with others.
Week 7	Lesson 1 - <u>Do all sounds sound the same?</u> We will investigate how and why the pitch of a sound changes and learn how this looks in terms of sound waves. In this session, the children will explore pitch using bottles/glasses filled with different amounts of water – firstly by blowing across the top of the bottle and secondly by hitting each bottle. They will learn how a high pitch sound and low pitch sound differ in terms of how they sound and what the sound waves look like (high pitch sound – waves close together, low pitch sound, waves further apart – SAME VOLUME – same amplitude). We will record these sound waves in our book. Lesson 2 - <u>How do musical instruments make sounds?</u> We will explore instruments and find out how they create high and low pitch sounds e.g. the strings in a piano that join at the keys are shorter or longer to create the different pitches. We will then design and make a musical instrument (a windpipe) to demonstrate the different pitches created by the different length straws. END OF UNIT QUIZ and TOP UP TEACHING
Week 8 RE	R.E. Lesson 1 - We will learn about who Sikhs are and what they believe. Lesson 2 - We will learn about the naming ceremonies of Sikh children and about the Sikh baptismal ceremony of Amrit. Lesson 3 - We will learn about Sikh marriage ceremonies and about Sikh funeral ceremonies and their belief on life after death.