Curriculum Journey

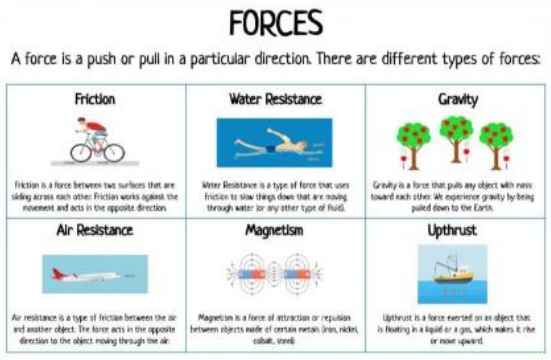
Year 5 – Autumn 2

Areas of learning

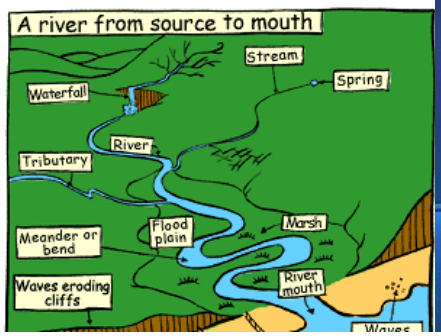
In **Geography** we will learn about rivers, how we use them and how we manage them.

In **Science** we will learn about forces; gravity, air resistance, and how we gain a mechanical advantage from simple machines.

In **D&T** we will be making a marble run, and in **Computing** we will be using computer aided design to help us design it.









5Cs focus	
Care	We will identify bullying behaviours and celebrate difference
Challenge	We will spot patterns and see links in number
Collaboration	We will work together in groups to create gymnastic sequences
Courage	We will develop our independence by planning and presenting a self-directed project
Creativity	We will use our knowledge of writing to create an emotive first person narrative

ENGLISH

Reading
Greek Myths
The Arctic Star

Writing
Greek Myth – Theseus and the Minotaur
Visual Literacy – Beyond the Lines

To maintain an appropriate form and style for the genre
To adapt writing for different audiences
To use paragraphs appropriately in narrative and non-narrative writing
To build cohesions through linking sentences and adverbials
To use a range of simple, compound and complex sentences in their writing
To vary sentence openers
To ensure the consistent and correct use of tense throughout a piece of writing
To use varied and precise descriptive words and phrases that fit the atmosphere being created
To begin to use figurative language
To proof read and edit writing including spelling and grammatical errors as well as improving what is written

Grammar
To consolidate previously taught grammar (capital letters, full stops, apostrophes, commas in lists)
To use inverted commas for direct speech
To use commas correctly
To use adverbials in sentences to explain how, where or when something happened
To use pronouns to refer to previously mentioned things
To be able to recognise and use the progressive tense (present and past)
To be able to recognise and use modal verbs

Spelling
To be able to spell all the 3 and 4 spelling words correctly
To spell some of the year 5 and 6 words correctly
To be able to add suffixes to words
To understand that some words have silent letters
To edit writing using known spelling strategies and dictionaries

Handwriting
To cursively join handwriting ensuring children are using appropriate capital and lower case letters and joining letters with diagonal and horizontal strokes.
To ensure that capital letters are not joined
Focus on tall and long letters

MATHS

Negative Numbers
To represent a change story using addition and subtraction symbols
To interpret numbers greater than and less than zero in different contexts
To read and write negative numbers
To explain how the value of a number relates to its position from zero
To identify and place negative numbers on a number line
To interpret sets of negative and positive numbers in a range of contexts
To use their knowledge of positive and negative numbers to calculate intervals
To explain how negative numbers are used on a coordinate grid
To use their knowledge of positive and negative numbers to interpret graphs

Multiplication and Division
To multiply a two-digit number by a single-digit number using partitioning and representations (no regroups, one regroup and then two regroups)
To multiply a two-digit number by a single-digit number using expanded multiplication (no regroups)
To multiply a two-digit number by a single-digit number using short multiplication (no regroups)
To multiply a two-digit number by a single-digit number using expanded multiplication (regrouping ones to tens)
To multiply a two-digit number by a single-digit number using short multiplication (regrouping ones to tens)
To multiply a two-digit number by a single-digit number using expanded multiplication (regrouping tens to hundreds)
To multiply a two-digit number by a single-digit number using short multiplication (regrouping tens to hundreds)
To multiply a two-digit number by a single-digit number using both expanded and short multiplication (two regroups)
To use estimation to support accurate calculation
To multiply a three-digit number by a single-digit number using partitioning and representations
To multiply a three-digit number by a single-digit number using expanded and short multiplication (no regroups, one regroup and then multiple regroups)
To use estimation to support accurate calculation
To divide a two-digit number by a single-digit number using partitioning and representations (no remainders, no exchanging then with exchanging and finally with exchanging and remainders)
To divide a two-digit number by a single-digit number using short division (no exchanging, no remainders then with exchanging and finally with exchanging and remainders)
To divide a three-digit number by a single-digit number using partitioning and representations (no exchanging, no remainders then with exchanging and finally with exchanging and remainders)
To divide a three-digit number by a single-digit number using short division (with exchanging and remainders)
To solve short division problems accurately when the hundreds digit is smaller than the divisor
To use efficient strategies of division to solve problems

SCIENCE -Forces

- Know what gravity is and its impact on our lives
- Identify and know the effect of air and water resistance

With prompting, to plan different types of scientific enquires to answer questions

- Identify and know the effect of friction

(Compare shoe friction on different surfaces)

With prompting to regcognise and control variables where necessary

Take precise measurements and record data in a table

- Explain how levers, pulleys and gears allow a smaller force to have a greater effect
- Explore the effects of air resistance by observing how different objects such as parachutes and sycamore seeds fall.

Ask their own questions about the scientific knowledge that they are studying.

- Explore the effects of friction on movement and find out how it slows or stops moving objects.
- Find out how scientists, for example, Galileo Galilei and Isaac Newton helped to develop the theory of gravitation.

A force may push or pull something, making it move. Forces may make things start, stop, speed up or slow down.
Gravity is a type of force which pulls things towards the centre of the earth. E.g. A ball falling to the ground.
Air resistance is a type of friction between the air and another material, it affects how fast or slowly objects move through the air. E.g. An aeroplane flying through the air.
Water resistance is another type of friction which slows objects down when moving through water. Eg. Trying to run through water
Isaac Newton helped develop the theory of gravity

Geography – How are Rivers Managed and Used in the UK

Locational Knowledge

- Know, name and locate the main rivers in the UK, Thames, Severn, Trent, Forth, Shannon
- The longest rivers in Britain are the Severn (220 miles long) and the Thames (215 miles long).

Place Knowledge

- The river Thames flows through Teddington

Human and Physical Geography

- To know and label the main features of a river
- The start of a river is called the source and the end is called the mouth.
- Many rivers and streams join together before they reach the mouth of the river. The smaller rivers and streams are called tributaries.
- Revisit the water cycle
- Identify processes and landforms along a river
- Rivers erode their banks to create meanders this can sometimes result in oxbow lakes
- To know how rivers are used around the world /UK?
- Recognise and explain how flooding affects communities
- Is flooding becoming more common as a result of climate change?
- The Thames Barrier, the bridge and lock in Teddington was built to manage the transport and avoid flooding
- Recognise and explain how human activity affects rivers

Geographical Map Work

- Use digital mapping to identify landforms along main rivers in the UK.
- Know, name and locate the main rivers in the UK, Thames, Severn, Trent, Forth, Shannon

Geographical Fieldwork

- using standard field sampling techniques appropriately (e.g. taking water samples from Teddington Lock)
- collecting, analysing and presenting quantitative data in charts and graphs

D&T

Problem: A child needs a marble run which is free standing.

- To investigate what makes a good marble run.
- Brackets are the use of triangular shapes to strengthen a structure
- Scoring cardboard makes it easier to bend or fold.
- flange joints are used to connect pipes and tubes.
- Tabs are used to join two pieces of cardboard together.
- To know cardboard can be engineered by a range of techniques
- To develop ideas through cross sectional drawings from an existing design specification
- To Use computer-aided design to develop and communicate their ideas
- To use skills and knowledge to make a clear plan and list of resources
- To use the skills I have learnt to make my marble run evaluating and testing as I go
- To evaluate the final prototype and know how to theme a project for the intended user.

Computing – Computer Aided Design

Aut 1- 3D modelling Tinker CAD Marble Run

1. To know that you can work in three dimensions on a computer
2. To identify that digital 3D objects can be modified
3. To recognise that objects can be combined in a 3D model
4. To be able to combine objects in a design
5. To be able to construct a 3D model based on a design
6. To be able to evaluate and improve a 3D model

PE - Hockey

1. To develop dribbling to beat a defender.

Dribbling: know that dribbling in different directions will help to lose a defender.

2. To develop sending the ball using a push pass
3. To develop receiving the ball with control.

Sending & receiving: know that not having a defender between myself and a ball carrier enables me to s&r with better control.

4. To be able to move into space to support a teammate.

Space: know that by moving to space even if not receiving the ball will create space for a teammate.

Tactics: understand the need for tactics and identify when to use them in different situations.

5. To develop using an open stick (block) tackle and jab tackle to gain possession of the ball.
6. To apply the rules and skills you have learnt to play in a hockey tournament.

Rules: understand and apply rules whilst playing and officiating

- Organise and lead warm up activities and games
- Help others to change in order to improve performances
- Accept decisions
- Compromise with other teams/individuals

PE - Dance

- To create a dance using a random structure and perform the actions showing quality and control.

I can accurately copy and repeat set choreography.
I can choreograph phrases individually and with others considering actions and dynamics.

- To understand how changing dynamics changes the appearance of the performance.

I can confidently perform different styles of dance, clearly and fluently, showing a good sense of timing.

- To understand and use relationships and space to change how a performance looks.
- To copy and repeat movements in the style of rock 'n' roll.

I can lead a group through short warm-up routines.
I can refine the way I use actions, dynamics, relationships and space in my dance in response to a stimulus.

- To work with a partner to copy and repeat actions keeping in time with the music.

I can suggest ways to improve my own and other people's work using key terminology.

- To work collaboratively with a group to create a dance in the style of Rock 'n' Roll.

- Organise and lead warm up activities and games
- Help others to change in order to improve performances
- Accept decisions
- Compromise with other teams/individuals

R.E - How do religious groups contribute to society and culture across the world?

***Living the Faith* – Organisations: Christian Aid, Salvation Army, CaFOD, Tearfund Muslim Aid/Islamic relief/Penny Appeal/ Zakat**

I can describe some practical ways that Christians and Muslims might care for the world

- To understand the significance of Zakah for Muslims in the Qu'ran

Zakat: is a pillar of Islam and it means giving money away to charity

Know 3 practical ways in which Charities care for the world

- Provide essentials eg food, clothing and blankets
- Provide shelter
- Give families a goat or sheep
- Provide tools for gardening

PSHE –Celebrating Difference

- L1- To understand that cultural differences sometimes cause conflict
- L2- To know racism is treating someone differently or a negative judgement about someone due to the colour of their skin or their race, their nationality, beliefs or religion.
- L3- To understand how rumour-spreading and name-calling can be bullying behaviours
  Know that rumour spreading is a form of bullying on and offline
- L4 – To know that bullying can be direct and indirect
- L5- To know how my life is different with people in the developing world
- L6- To understand a different culture from my own

Music – What Shall We Do With A Drunken Sailor

Improvise and compose:

• Compose body percussion patterns to accompany a sea shanty.

• To know how to write body percussion patterns using rhythm grids

Sing and Play

• Keep the beat playing a 'cup' game

• Sing a sea shanty expressively, with accurate pitch and a strong beat

• Sing in unison while playing an instrumental beat (untuned)

• Play bass notes, chords, or rhythms to accompany singing

Listen and appraise:

• Talk about the purpose of *sea shanties* and describe some of the features using music vocabulary