Knowledge Organiser Year 4

St Augustine's School, Weymouth

Spring Term

Year 4 Spring Term - Art

Prior Learning
Y3 Sculpture- Roman vases

Unit
Sculpture
Clay relief tiles

How Knowledge will be built on
Sculpture
Y6 Ancient Greece

Key Knowledge

- Colour: Experiment with colour and its effects
- Pattern: Investigate and apply understanding of pattern
- Line: make choices of tool, based on the quality of the lines they produce – width, depth, feel
- Shape: recreate shapes using curved, straight, dotty lines and the shapes they define
- Form : work in 3D on a small scale and combine to make a 3D image

Vocabulary

relief, tiles, ceramic, theme, indent, press, apply, hatching, slip, graft, indentation, form, shape, texture, composition, profile, stylized, proportion, decoration, ornate, symbolic, perspective

Year 4 Spring Term - Computing

Prior Learning	Unit	How Knowledge will be built on
Y4- Collaborative learning	Creating media: Website design	Y5 Creating media- Stop motion

Key Knowledge

- Building a web page and creating content for it.
- Designing and creating a webpage for a given purpose.
- Using software to work collaboratively with others.

Vocabulary

Assessment, Audience, Checklist, Collaboration, Content, Contribution, Create, Design, Embed, Evaluate, Features, Google Sites, Hobby, Homepage, Hyperlinks, Images, Insert, Online, Plan, Progress, Published, Record, Review, Style, Subpage, Tab, Theme

Year 4 Spring Term - Computing

Prior Learning

Programming using Scratch. (Y4)

Unit

Skills Showcase- HTML
Editing the HTML and CSS on a website.

How Knowledge will be built on

Programming 2, Computing Thinking. (Y4)

Key Knowledge

- Remixing existing code.
- Building a web page and creating content for it.
- Understanding that information found by searching the internet is not all grounded in fact.
- Recognising that information on the Internet might not be true or correct and that some sources are more trustworthy than others.

Vocabulary

Code, Component, Content, Copyright, CSS, End tag, Fake news, Hacking Heading, Headline, Hex code, HTML, Input, Internet browser, Output, Paragraph, Permission, Remixing, Script, Start tag, Tags, Text, URL, Webpage.

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<p>This is a paragraph.</p>
<p>This is another paragraph.</p>
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Year 4 Spring Term - DT

Prior Learning: Mechanical Systems, Pneumatic Toys (Y3)

Unit: Mechanical Mechanisms, Making a slingshot car

How Knowledge will be built on: Mechanical Systems, Making a pop-up book (Y5)

Key Knowledge

- To understand that car designs have developed over many years; To know that a chassis is the frame of a car on which everything else is built; To know that all moving things have kinetic energy; To know that kinetic energy is the energy that something (an object or person) has by being in motion, eg: the energy that a swing has to keep on moving; any object in motion is using kinetic energy
- To know that air resistance is the level of drag on an object as it is forced through the air. To understand that the shape of a moving object will affect how it moves due to air resistance.
- To know that nets are flat shapes that can be turned into 3D structures
- To remember that smaller shapes create less air resistance and can move faster through the air; Understand that some cars are faster than others as a result of: Body shape, Stored energy in the elastic band, and accuracy of the angle in the chassis and axle.
- evaluate slingshot cars against their design criteria.

Vocabulary

Chassis, energy, kinetic, mechanism, air resistance, design, structure, graphics, research, model, temperature, aesthetic, function, net, structure

Year 4 Spring Term - Geography

Prior Learning

Y4- Brazil
Y2- Hot and Cold Desserts, Rivers, Seas and Oceans.

Unit

Should deforestation be allowed to happen in the Amazon Rainforest?

How Knowledge will be built on

Y5 Climate across the world

Key Knowledge

- Rainforests are forests that are found in places with high temperatures and lots of precipitation
- They are found between the Tropics of Cancer and Capricorn, in the area known as the Tropics
- Rainforests are made of four main layers of different heights: the emergent, the canopy, the understory and the forest floor
- A symbiotic relationship is a long-term relationship between one or more species, in which both species receive benefits
- Rainforests provide the Earth with many benefits, including releasing lots of oxygen, having plants that can be used to make medicine, and they are the only home to lots of species
- Chopping down trees is called deforestation
- Deforestation of the Amazon rainforest in Brazil is making way for agriculture, to improve Brazil's economy

Vocabulary

Rainforests, High temperatures, Precipitation, Tropic of Cancer/Capricorn, Tropics, Emergent/canopy/understory/ forest floor, Symbiotic relationship, Adapted, Oxygen, Species, Deforestation, Agriculture

Year 4 Spring Term - History

Prior Learning

The Roman Empire and Romans in Britain (Y3)

Unit

The Anglo Saxons
What impact did the settlement of the Anglo-Saxons have on Britain?

How Knowledge will be built on

The Viking and Anglo-Saxon struggle for England (Y4)

Key Knowledge

The Romans left Britain by the end of the 4th Century to defend Rome and even before they left, Britain was already being occupied by other tribes.

- The Picts and Scots lived in the far north of Britain in what is now known as Scotland.
- Anglo Saxons lived rurally, unlike the Romans. Small kingdoms were ruled by kings and some superkings rules multiple kingdoms.
- After the Romans, many Britains returned to Paganism until Pope Gregory the Great sent St Augustine to convert the Anglo Saxons in 596AD.
- The Anglo Saxons were keen storytellers.
- The Dark Ages is the name given to this period in history.

Vocabulary

invasion, settlement, migration, kingdom, Angle, Saxon, Scot, Pict, Jute, society, culture, Bretwalda (superking), thanes, churls, thralls, warrior, pagan, Christianity, monastery, pilgrimage, literature, Heroic Code

Year 4 Spring Term - Maths

Half Termly Overview			
6	Number	Multiplication and Divison	• recall multiplication and division facts for multiplication tables up to 12 × 12 • use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers • recognise and use factor pairs and commutativity in mental calculations • multiply two-digit and three-digit numbers by a one-digit number using formal written layout • solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects
7	Measurement	Length and Perimeter	• convert between different units of measure [for example, kilometre to metre; hour to minute] • measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres
8	Number	Fractions (1)	• recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators • recognise and show, using diagrams, equivalent fractions with small denominators • compare and order unit fractions, and fractions with the same denominators • fractions (including decimals)recognise and show, using diagrams, families of common equivalent fractions
9	Number	Fractions (2)	• solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number • Number - fractions (including decimals)add and subtract fractions with the same denominator
10	Number	Decimals	• recognise and write decimal equivalents of any number of tenths or hundredths • Number - fractions (including decimals)find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths

Year 4 Spring Term - MFL

Prior Learning

Y3- Les couleurs et les nombres

Unit

French- Les Animaux

How Knowledge will be built on

Y5- As-tu un animal?

Key Knowledge

- Name and recognise up to 10 animals in French.
- Attempt to spell some of these nouns with their correct indefinite article.
- Pretend that we are a particular animal using the 1st person singular of the verb être (je suis = I am).

Vocabulary

Un cheval, une souris, un cochon, un lion, un lapin, un oiseau, un mouton, une vache, un singe, un canard

Year 4 Spring Term - MFL

Prior Learning

Les couleurs et les Nombres
Les Fruits (Y3)

Unit

French- Les Glaces

How Knowledge will be built on

Au café (Y5)

Key Knowledge

- Name, recognise and remember up to 10 ice-cream flavours in French.
- Attempt to spell some of these flavours.
- Use the structure ‘je voudrais…’ plus an ice-cream flavour
- Say whether we would like a cone or pot and possibly how many scoops.
- Learn how to say ‘please’ and ‘thank you’ in French.

Vocabulary

glace, menthe, fraise, banane, pistache, cassis, caramel, citron, café, chocolat, boule, pot, cornet

Year 4 Spring Term - Music

Prior Learning

Y4- Dorset Musicianship Programme (Samba)

Unit

Samba and carnival sounds.

How Knowledge will be built on

Y5- South and West Africa

Key Knowledge

- Recognising and discussing the stylistic features of different genres, styles and traditions of music using musical vocabulary.
- Identifying common features between different genres, styles and traditions of music.
- Recognising, naming and explaining the effect of the interrelated dimensions of music.
- Using musical vocabulary to discuss the purpose of a piece of music.
- Beginning to improvise musically within a given style.
- Creating a piece of music with at least four different layers and a clear structure.
- Suggesting improvements to others' work, using musical vocabulary.
- Singing and playing in time with peers with accuracy and awareness of their part in the group performance.
- Playing syncopated rhythms with accuracy, control and fluency.

Vocabulary

Agogo, bacteria, caixa, carnival, chocalho, composition, crescendo, cowbell, dynamics, ensemble, features, ganza, influenced, metronome, off-beat, percussion, pulse, repique

Year 4 Spring Term - Music

Prior Learning

Y3- Jazz

Unit

Rock and Roll

How Knowledge will be built on

Y5- Blues

Key Knowledge

- Recognising and discussing the stylistic features of different genres, styles and traditions of music using musical vocabulary.
- Identifying common features between different genres, styles and traditions of music.
- Recognising, naming and explaining the effect of the interrelated dimensions of music.
- Using musical vocabulary to discuss the purpose of a piece of music.
- Using musical vocabulary when discussing improvements to their own and others' work.
- Singing longer songs in a variety of musical styles from memory, with accuracy, control, fluency and a developing sense of expression including control of subtle dynamic changes.
- Singing and playing in time with peers with accuracy and awareness of their part in the group performance.
- Playing melody parts on tuned instruments with accuracy and control and developing instrumental technique.

Vocabulary

rock and roll, hand jive, 1950's, tempo, dynamic, notation, style

Year 4 Spring Term - PE

Prior Learning	Unit	How Knowledge will be built on
Y3- Dance	Dance	Year 5- Dance

Key Knowledge

- Physical: Actions, dynamics, space, relationships
- Social: Co-operation, communication, inclusion, collaboration
- Emotional: confidence, empathy, determination
- Thinking: observe and provide feedback, select and apply skills, creativity, comprehension.

Vocabulary

Actions, matching, mirroring, formation, canon, unison, phrases, dynamics

Year 4 Spring Term - PE

Prior Learning

Netball, Hockey. (Y3)

Unit

Football

How Knowledge will be built on

Team Ball Sports Netball (Y4&5) Hockey. (Y5)

Key Knowledge

- To develop the attacking skill of dribbling.
- To develop changing direction and speed when dribbling.
- To develop passing and begin to recognise when to use different skills
- To apply attacking skills to move towards a goal.
- To use defending skills to delay an opponent and gain possession.
- To apply skills and knowledge to compete in a tournament

Vocabulary

dribble, dodge, attack, direction, agility, passing, goal, shoot, defend, possession

Year 4 Spring Term - RHE

Prior Learning

Unit

Family, Friends and Others

How Knowledge will be built on

Key Knowledge

- That God loves, embraces, guides and forgives us; He reconciles us with Him and one another.
- That relationships take time and effort to sustain.
- That there are different types of relationships including those between acquaintances, friends, family and relatives
- That good friendship is when both persons enjoy each other's company and also want what is truly best for the other
- The difference between a group of friends and a 'clique'
- Develop a greater awareness of bullying (including cyber-bullying), that all bullying is wrong, and how to respond to bullying
- Learn about harassment and exploitation in relationships, including physical and emotional abuse and how to respond

Vocabulary

relationship family friend other detective half-brother/sister aunt/uncle grandparents passed away argument adopted God's family the Church qualities kindness listening honesty trust encouragement patience forgiveness respect loyalty fun sorry left out good bad feelings bullying physical emotional banter clique pressure resilience harassment exploitation

Year 4 Spring Term - Science

Prior Learning

Living creatures and their habitats. (Y1, 2 and 3)

Unit

Biology Why and how can we classify animals?

How Knowledge will be built on

Invertebrates, bacteria and microorganisms. (Y6)

Key Knowledge

- Classification refers to a method used to place all living things into groups. Organisms can be classified in a number of ways. Animals can be grouped – mammals, reptiles, amphibians, fish, birds, invertebrates etc. Aristotle's system.
- Vertebrates have endoskeletons. Vertebrates can be grouped in a number of ways based on their characteristics, e.g. warm/cold blooded; or physical features like, fur, beak, wings, number of legs etc. A classification key is a series of questions that determine an organisms physical characteristics.
- Invertebrates can be grouped based on their characteristics as snails and slugs; spiders and insects. Invertebrates can be placed into groups based on their skeletons; endo and exo skeletons or hydrostatic skeletons.
- Plants can be grouped into flowering and non-flowering.
- Buildings and new developments have destroyed many habitats.
- Not all organisms can be classified using systems explored. Some animals and plants do not support Aristotle's approach to classifying living things.

Vocabulary

Classification keys, environment, fish, amphibians, reptiles, birds, mammals, vertebrates, invertebrates, names of them, human impact, positive, negative, Aristotle, Linnaeus, classify, group, nature reserve

Year 4 Spring Term - Science

Prior Learning

Y4 - Chemistry, states of matter.
Y3 Physics - Light

Unit

Physics
How are sounds made?

How Knowledge will be built on

Y6 Physics- Light

Key Knowledge

- Sounds are made when objects vibrate. These vibrations cause the air particles surrounding them to vibrate and collide, causing the vibrations to pass between particles
- Vibrations travel through a medium (e.g. air, water) to the ear. Vibrations enter the ear, our inner ear vibrates and we hear them as sound.
- Vibrations are passed on from one particle to the next, and so it travels more easily when particles are closer together (solids and liquids). Sound cannot travel in a vacuum.
- The volume and pitch of sound can change. Pitch (high/low) Volume (loud/quiet)

Vocabulary

Sound, sound source, noise, vibration, travel, solid, liquid, gas, pitch, tune, high, low, volume, loud, quiet, fainter, muffle, strength of vibrations, insulation, instrument, percussion, strings, bass, woodwind, tuned instrument.