Knowledge Organiser Year 6

St Augustine’s School, Weymouth

Spring Term

Year 6 Spring Term - Art

Prior Learning

Experiment with colour to portray a cultural message; Select colours to overlap for effect and to create mood; Understand how an overall image is made from the placement of a series of coloured squares

Unit

Drawing Collage and Calligraphy: Islamic

How Knowledge will be built on

Digital Art

Key Knowledge

- Develop an understanding of calligraphy as a graphic art form- exploring mosque architecture, arabesques, and calligraphy.
- Consider use of colour, line and shape when exploring work from another time or culture.
- Build up drawings of whole or parts of items.
- Embellish decoratively using layers of materials, drawing on known skills and techniques in collage, painting, drawing, printing.
- Plan and complete extended sets of drawings in sketchbooks.

Vocabulary

layer, super impose, embellish, layer, assemble, decorate, calligraphy, graphics, text, font, rune, composition

Year 6 Spring Term - Computing

Prior Learning: Programming

Unit: Data Handling

How Knowledge will be built on: Creating Media: History of Computers

Key Knowledge

- To identify how barcodes and QR codes work.
- To know how infrared waves transmit data.
- To recognise how RFID is used.
- To input and analyse real-world data.
- To analyse and evaluate data.

Vocabulary

Algorithm, Brand, Commuter, Contactless, Systems, Analyst, Column, Data, Input, RFID, Row, Spreadsheet, Encrypt, Proximity, Infrared

Year 6 Spring Term - Computing

Prior Learning: Data Handling

Unit: Creating Media: History of Computers

How Knowledge will be built on: Stop motion – Option 1: Using tablets

Key Knowledge

- To know that radio plays are plays where the audience can only hear the action so sound effects are important.
- To know that sound clips can be recorded using sound recording software.
- To know that sound clips can be edited and trimmed.

Vocabulary

Radio play; RAM; Raspberry Pi; Record; Reverb; ROM; script; Smartphone; sound; sound effects; terrabytes; touch screen; track; trackpad; trailer

Year 6 Spring Term - DT

Prior Learning: Textiles: Stuffed toys

Unit: Textiles: Waistcoats

How Knowledge will be built on: Structures: Playgrounds

Key Knowledge

- To understand that it is important to design clothing with the client/target customer in mind.
- To know that using a template (or clothing pattern) helps to accurately mark out a design on fabric.
- To understand the importance of consistently sized stitches.

Vocabulary

Annotate; decorate; design criteria; fabric; target customer; waistcoat; waterproof

Year 6 Spring Term - Geography

Prior Learning

North and Central America and the Caribbean (Y5 Aut)
Oceans (Y5 Aut)

Unit

How does migration impact the person who is migrating and the country they migrate to?

How Knowledge will be built on

Further case studies of migration in depth.

Key Knowledge

- Migration is the process of moving from one place to another. It does not have to be between countries, but where it is it is called immigration (in) or emigration (out) People migrate because of push and pull factors
- Push factors encouraging people to emigrate from the Northern Triangle include violent crime and poverty Pull factors encouraging people to migrate to USA include lower rates of violent crime, prospect of higher-paid jobs and family reunification.
- Forced migration occurs when people can no longer live safely in their country. When people are forced to leave their country, they seek asylum in another country
- The UK has benefitted from immigration in many ways (economic, social and cultural)

Vocabulary

Maslow's hierarchy of needs; Migration; Immigration; Emigration; Push and pull factors; Northern Triangle; Forced migration; Asylum/asylum seekers; Immigrants; Economic/social/cultural effects; Crime; Poverty; Family reunification; The American Dream

Year 6 Spring Term - History

Prior Learning

Understanding of the Islamic beliefs and religious practices from RE lessons.

Unit

Enquiry question: Why should we study Early Islamic Civilisation in school?

How Knowledge will be built on

The religious crusades

Key Knowledge

- The early Islamic period started in around AD600
- The Islamic empire spread from the Middle East to North Africa and Spain in the west and India in the east.
- The success of the Muslim conquest was due to a number of reasons including that their opponents were weakened, they were strong warriors and were inspired by an Islamic faith and culture that many conquered areas found appealing.
- Baghdad became known as the cultural and learning capital of the world. The world's first universities and hospitals were built there. The House of Wisdom was built there as the centre of learning and knowledge.
- Baghdad had 10 times more inhabitants than London.
- The early Muslims developed the system of numbering that we still use today.

Vocabulary

empire, civilisation, Islam, Muslim, Prophet, Caliph, caliphate, achievement, mosque, House of Wisdom, scholar, astronomy, philosophy, trade, prosperity

Year 6 Spring Term - Maths

Half Termly Overview			
7	Number and Place Value	Place Value within 10,000,000	• read, write, order and compare numbers up to 10 000 000 and determine the value of each digit • round any whole number to a required degree of accuracy • use negative numbers in context, and calculate intervals across zero • solve number and practical problems that involve all of the above
8	Number	Four Operations (1)	• recognise and use square numbers and cube numbers, and the notation for squared (^{2}) and cubed (^{3}) • identify common factors, common multiples and prime numbers • use their knowledge of the order of operations to carry out calculations involving the four operations • solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why
9	Number	Four Operations (2)	• multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication • divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context • divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context • perform mental calculations, including with mixed operations and large numbers • identify common factors, common multiples and prime numbers • use their knowledge of the order of operations to carry out calculations involving the four operations • solve problems involving addition, subtraction, multiplication and division

Year 6 Spring Term - Maths

Half Termly Overview			
7	Ratio and Proportion	Ratio and Proportion	• solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts • solve problems involving similar shapes where the scale factor is known or can be found • solve problems involving unequal sharing and grouping using knowledge of fractions and multiples
8	Algebra	Algebra	• use simple formulae • generate and describe linear number sequences • express missing number problems algebraically • find pairs of numbers that satisfy an equation with two unknowns • enumerate possibilities of combinations of two variables
9	Number	Decimals	• associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, 3/8] • identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places • multiply one-digit numbers with up to two decimal places by whole numbers • use written division methods in cases where the answer has up to two decimal places • olve problems which require answers to be rounded to specified degrees of accuracy

Year 6 Spring Term - Maths

Half Termly Overview			
10	Number	Percentages	• compare and order fractions, including fractions > 1 • Number - fractions (including decimals and percentages)multiply one-digit numbers with up to two decimal places by whole numbers • Number - fractions (including decimals and percentages)recall and use equivalences between simple fractions, decimals and percentages, including in different contexts • Ratio and proportionsolve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison
11	Measurement	Perimeter, Area, Volume	• recognise that shapes with the same areas can have different perimeters and vice versa • Measurementrecognise when it is possible to use formulae for area and volume of shapes • Measurementcalculate the area of parallelograms and triangles • Measurementcalculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm^3) and cubic metres (m^3), and extending to other units [for example, mm^3 and km^3]

Year 6 Spring Term - MFL

Prior Learning

Chez Moi (I)

Unit

Les Habitats (I)

How Knowledge will be built on

Quel Temps Fait-Il? (I)
What is the weather?

Key Knowledge

- Say and write the key elements animals and plants need to survive.
- Name the 5 most common types of habitats.
- Name an animal and a plant that live and grow in each type of habitat.
- Name an adaptation of each plant and animal mentioned in the unit.
- To look more closely at the verbs regular -er verbs habiter and pousser and in particular the 3rd person singular

Vocabulary

la prairie, l'Arctique, le désert, l'océan, l'eau, l'air, la nourriture, le soleil, un abri, les buissons, les grands arbres, les cactus, les algues

Year 6 Spring Term - MFL

Prior Learning

Les Habitats (I)

Unit

Quel Temps Fait-Il? (I)
What is the weather?

How Knowledge will be built on

Le Week-end (P)

Key Knowledge

- Introduced to the new vocabulary for describing the weather in French.
- Start to learn how to recall, say and write the weather expressions from memory.
- Learn to improve my listening decoding skills.
- Learn how to read a weather map in French and describe weather in different parts of the country.
- Use all my new knowledge to present a weather forecast in French.

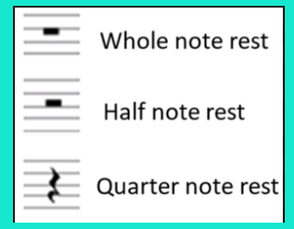
Vocabulary

il pleut; il fait chaud; il fait froid; il fait mauvais; il fait beau; il y a du vent; il y a un orage; il y a du soleil

Year 6 Spring Term - Music

Prior Learning	Unit	How Knowledge will be built on
Songs of World War 2	Film Music	Theme and variations (Theme: Pop Art)

Key Knowledge



- I can discuss the features of film music
- I can name several styles of music
- I can identify characteristics of music and interpret their meaning
- I can use the words ‘major’ and ‘minor’ when discussing music that evokes different emotions
- I can make suggestions of sounds which represent the symbols on a graphic score
- I can improvise my own sounds within a whole-class context
- I can relate sounds that I compose to a storyline in a film
- I can notate my ideas using my own symbols on a graphic score

Vocabulary

Graphic score, Composition, Accelerando, Crescendo, Graphic score , Higher and lower, Soundtrack, Major, Minor, Orchestral, Instruments, Musical, Soundtrack, Emotion, Imagery

Year 6 Spring Term - Music

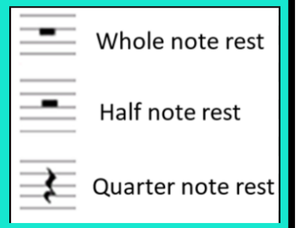
Prior Learning: Advanced rhythms

Unit: Theme and variations (Theme: Pop Art)

How Knowledge will be built on: Baroque

Key Knowledge

- To know that a ‘theme’ is a main melody in a piece of music.
- To know that ‘variations’ in music are when a main melody is changed in some way throughout the piece.
- To know that ‘The Young Person’s Guide to the Orchestra’ was written in 1945 by Benjamin Britten.
- To understand that representing beats of silence or ‘rests’ in written music is important as it helps us play rhythms correctly.



Vocabulary

Vocabulary; 3/4 time; 4/4 time; accidentals; percussion; diaphragm; legato; motif; orchestra; percussion; phrases; pitch; pizzicato; pulse; quaver; rhythm; rhythmic; elements; section; semi-quaver; staccato; tempo; theme; translate; variations; vocal line; woodwind

Year 6 Spring Term - PE

Prior Learning	Unit	How Knowledge will be built on
Gymnastics	Dance	Secondary School Dance

Key Knowledge

- Choreograph a dance
- Lead a small group in a warm-up
- Perform dances with accuracy and good timing
- Evaluate work with appropriate language
- Use feedback to improve the quality of my work

Vocabulary

Choreograph, routine, perform, timing, dynamics, emotions, evaluate. Feedback, creative

Year 6 Spring Term - PE

Prior Learning: Invasion Games

Unit: Basketball

How Knowledge will be built on: KS3 Invasion Games

Key Knowledge

- Physical: run, jump, throw, catch, dribble, shoot
- Social: collaboration, communication, co-operation, respect
- Emotional: honesty and fair play, confidence, persevere
- Thinking: reflection, decision making, select and apply, use tactics, observe and provide feedback, identify areas of strength and areas for development

Vocabulary

Double dribble; travelling; chest pass; flat pass; quick pass; bounce pass; intercept; transition; balance; rebound; mark; free pass; free shot

Year 6 Spring Term - Science

Prior Learning: Light- Year 3

Unit: Physics: Light

How Knowledge will be built on: KS3 Physics

Key Knowledge

- Objects **emit** (give out) or **reflect** light into the eye.
- **White light**, which comes from most light sources we use in the classroom, contains all the colours of the **visible spectrum** (red, orange, yellow, green, blue, indigo, violet)
- When a light meets a surface, some colours are **absorbed** and some are
- **reflected**.
- We see the colour(s) that are reflected
- On a flat surface, all light meeting a surface from one direction will be reflected in the same direction. This is known as specular reflection. On a rough surface, light will be reflected in all directions. This is known as diffuse reflection
- Shadows have the same shape as the objects that cast them because light travels in straight lines. When light meets an opaque object, some of the light is reflected and some of it is absorbed

Vocabulary

Ray, diagrams, energy, emit, reflect, light, sources, opaque, specular, reflection, diffuse, reflection, White, light visible, spectrum, absorbed, reflected

Year 6 Spring Term - Science

Prior Learning: Classification: Grouping animals as vertebrates and invertebrates

Unit: Biology: Further classification of living organisms based on characteristics

How Knowledge will be built on: Cells within plants and animals

Key Knowledge

- **Invertebrates** can be grouped based on their characteristics as poriferans (sponges) cnidarians, echinoderms, molluscs, annelids, platyhelminths and arthropods (spiders, insects, crustaceans and myriapods).
- Plants can be grouped into moss, ferns, conifers and flowering plants
- **Fungi** are different to plants and animals. They cannot make their own food (like animals) but do not move (like plants)
- **Micro-organisms** are organisms that are so small that we cannot see them with our eyes alone.
- Some **fungi** are microorganisms (e.g. yeast), but not all are (e.g. mushrooms)
- **Bacteria** are microorganisms. Some bacteria can cause disease in other organisms
- Some bacteria are helpful for other organisms (e.g. those that help break down food in our digestive system) and those that form part of a **symbiotic relationship**

Vocabulary

Organism, micro-organism, fungus, mushrooms, classification keys, environment, fish, amphibians, reptiles, birds, ,mammals, vertebrates, invertebrates, name some of these, arachnid, mollusc, insect, crustacean