Hobbs Hill Wood Primary School

Knowledge Organiser for
Year 5 – Summer 2
Computing

We are VR Designers

'Inspiring confident and independent learners'

Knowledge

In:

- **Session 1** they explore familiar and unfamiliar locations in VR using Google Street View
- **Session 2** they create a 360° photo and import it to Google Maps
- **Session 3** they record book reviews, and link them to books using **QR** codes
- **Session 4** they are introduced to CoSpaces
- **Session 5** they create a scene in CoSpaces
- **Session 6** they write a program to control a VR or AR object in CoSpaces.

Core Vocabulary:

Accelerometer: hardware component providing data on changes in motion, typically in three directions
Augmented reality (AR): digital layer superimposed on a view of the real world
Global positioning system (GPS): this system allows a user to determine their exact location using a network of satellites
Google Cardboard: low-cost VR headset, typically made from cardboard and plastic lenses, which repurposes a smartphone as a VR display
Photosphere: spherical collection of photographs so that the image displayed matches the direction viewed
QR Code: 2-D array of light and dark squares used to encode text in a way that can be read using a smartphone or tablet camera
Share Code: CoSpaces shortcut to allow those with the software to view a scene created by another user
Stereographic: a pair of slightly different images created with a slight offset, and shown to left and right eyes to create the illusion of depth
Virtual reality (VR): simulated, immersive 3-D representation of a real or imagined scene

Skills

In this unit, pupils will learn to:

- explore real-world and imagined locations in **VR**
- create 360° **photosphere** images
- link physical objects to digital content using **QR** codes
- create their own VR scene
- program objects and interactions in VR.

QR code

Hobbs Hill Wood Primary School

Knowledge Organiser for
Year 5 – Summer 2
DT
Fairgrounds

'Inspiring confident and independent learners'

Knowledge

- **Core Vocabulary:** annotate, design criteria, investigate, analyse, purpose, evaluate, construct, components, generate, cross-sectional, exploded diagrams

To know of a range of different types of fairground ride and understand the different mechanisms used to make them move.
To know how to annotate sketches to develop and communicate ideas.
To understand and generate realistic ideas, focusing on the needs of the user.
To know how to make a fairground ride and how to join its components together and make it move (swing, spin, up and down, forwards and backwards)
To know a range of construction materials and their properties (Card, plastic, wood etc)
To know how to adapt and change designs to make them functional.
To know the function and properties and aesthetic qualities of a wider range of materials.
To know different methods of attaching materials securely together (glue, nail, screw, bolt, staple etc)
To know a range of tools and what their uses are.
To know how to use a range of tools safely (hammer, Saw, drill, hot glue etc)
To apply their understanding of how to strengthen, stiffen and reinforce more complex structures.
To understand and use mechanical systems in their products (for example – motors, gears [for example - motors, gears, pulleys, cams, levers and linkages]
To understand and use electrical systems in the products [for example, series circuits incorporating switches, bulbs, buzzers and motors
To know what 'a good finish' is and how to adapt and refine original design ideas.
To know how to use their design criteria evaluate and improve their completed products.
To understand how key events and individuals in design and technology have helped shape the world.

Skills

Design
To research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.
To generate, develop, model and communicate their ideas through discussion, annotated sketches, cross sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design
Make
To select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately
To select from and use a wider range of materials and components, including construction materials,
Evaluate
To investigate and analyse a range of existing products
To evaluate their ideas and products against their own design criteria and consider the views of others to improve their work

Hobbs Hill Wood Primary School

Knowledge Organiser for
PE
Year 5
Cricket and Athletics

'Inspiring confident and independent learners'

Cricket

National curriculum aims

2B- play competitive games, modified where appropriate, and apply basic principles suitable for attacking and defending.

2F- Compare their performance with previous ones and demonstrate improvement to achieve their personal best.

Skills

- Bowl using an overarm technique, beginning to vary speed and length of delivery.
- Hit the ball with purpose varying speed height and direction, as well as thinking of tactics needed to score more runs.
- Choose skills and tactics to meet the needs of the situation.
- Begin to bowl at different speeds and accuracy
- Work as part of a team that covers the areas to make it hard for the batter to score runs
- To show a good awareness of others in game situations.
- Participate in competitive games, modified where appropriate
- Perform skills and techniques including: retrieving, intercepting and stopping the ball.
- Participate in competitive game situations apply skills and technique.

Unit objectives

- Step 1- Throw a ball in different ways
- Step 2- To play shots that allow the ball to bit hit to different areas of the field into spaces
- Step 3 – To retrieve, catch, intercept, and stop a ball when fielding.
- Step 4 –To use skills and tactics to outwit the opponents when fielding
- Step 5- To use skills and tactics to outwit the opponents when batting
- Step 6 – To participate in competitive games.

Key Vocabulary	Cricket, Fielding, Striking, Teamwork, Score, Wickets, Runs, Batting, Aiming, Overarm, Accuracy, Underarm, Throwing, Bowling, Wicket keeper, Long Barrier

Athletics

National curriculum aims

2A- use running, jumping, throwing, and catching in isolation and in combination.

2F- Compare their performacne with previous ones and demonstrate improvement to achieve their personal best.

Skills

- Understand appropriate pace judgement for running distance to be covered
- Run, jump, catch and throw in isolation and start to throw in combination.
- Demonstrate a range of throwing actions e.g. push, pull, sling, using different equipment.
- Understand and start to apply the appropriate throwing and jumping technique to achieve maximum distance and height.
- Apply skills that meet the needs of the situation, combining and performing each skill with control at speed with some accuracy.

Unit objectives

- Step 1- To use a combination of jumps
- Step 2- To leaning the techniques to use in long distance running
- Step 3 – To start to compete in short distance races
- Step 4 – To run up when throwing and jumping
- Step 5 – To improve skills to throw at distance
- Step 6- To perform competitively with others – mini Olympics

Key Vocabulary		
	• Athletics • Jumping • Throwing • Running • Co-ordination	• Measurements • Timing • Movement • Technique

Hobbs Hill Wood Primary School

Knowledge Organiser for
Year 5 – Summer 2
RE

Leaders in Religious Communities & Creation Stories and the ultimate questions they raise

'Inspiring confident and independent learners'

Knowledge

- To know about the roles and responsibilities of authority figures within their own lives and of religious leaders in different faith communities.
- To know about places of religious importance; the way each place is used and its meaning and significance.
- To understand the difference between ultimate and non-ultimate questions.
- To understand that religions may give followers the answers to some of the mysteries of life.
- To know about individual beliefs and consider the ways in which members of faith communities describe their understanding of God/gods.
- To know about religious festivals which share common themes, but which have meaning unique to each faith.
- **Core Vocabulary:** authority figures, religious leader, roles, responsibilities, Rabbi, question, ultimate, belief, certainty, creation, Sabbath

Rabbi

Skills

- To identify and begin to describe the similarities and differences within and between religions.
- To investigate the significance of religion in the local, national and global communities.
- To develop their sense of curiosity about life, death, relationships and the natural world and express personal opinions.
- To raise ultimate and non-ultimate questions and suggest answers.
- To describe the key aspects of religions and traditions that influence the beliefs and values of others.

Ultimate questions

Hobbs Hill Wood Primary School

Knowledge Organiser for
Year 5 – Summer 2
Science

Growing Up and Growing Old

'Inspiring confident and independent learners'

Knowledge

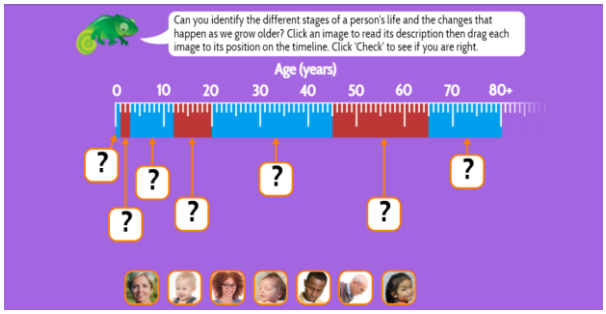
- Describe the changes from babies to old age
- Describe changes in humans over time
- Use appropriate vocabulary to describe the human body and changes
- **Core Vocabulary:** baby, toddler, child, teenager, adolescent, adult, changes, physical, emotional, compare, graph, communicate, conclusion, old age, arthritis

Baby

Childhood

Skills

- Analyse patterns in data and draw conclusions
- Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.
- Report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.



Timeline activity