

BLACK HORSE HILL JUNIOR SCHOOL - SCIENCE LESSON SEQUENCE



Space

Enquiry/ Learning Intention	What the children will know/ Essential knowledge
1. What are the key tier 3 technical vocabulary relating to Space?	Children will spell key technical language (e.g orbit, gravity, constellation etc) and understand their meaning through the use of dictionaries.
2. What is the Solar System? How do planets orbit the Sun?	Children will know that the Solar System is made up of 8 planets. Be able to order and name them and understand that the planets orbit the Sun - that their distance from the Sun remains constant.
3. What key information can I research about one chosen planet?	Children will use IT/ book resources to develop their knowledge of one planet of the Solar System. They will identify useful resources - if any- that can be extracted and consider whether their planet is suitable for human habitation and whether reaching it would be possible.
4. What is the relationship (connection) between the Earth, Moon and Sun?	Children will explore the consequences of the Earth having 2 Suns and no Suns. They will demonstrate physically and through creating models the orbits of the Moon and Earth in relation to each other and the Sun. They will collate key facts such as composition, diameter, climate.
5. How does the Moon orbit the Earth and what are the Moon phases?	Children will know that the Moon is not a source of light but is seen when light from the Sun reflects on it. They will know that the Moon has phases, each phase's name and be able to demonstrate how the phases

	are formed through the use of globes and torches. They will present an informative poster to explain the different phases.
6. How is day and night formed? Why do we have seasons in the UK?	Children will understand that day and night is caused by the Earth's rotation and that the Sun does not rotate. They will identify that it is the Earth tilting on its axis that causes the seasons and be introduced to the terms 'Northern and Southern Hemisphere.'
7. Why do we have different time zones?	Children will use atlases to identify the importance of lines of longitude to understand time differences around the World. They will know GMT and identify time differences with other countries. Children will identify professions where lines of longitude/latitude are vital.
8. How have ideas about the Universe changed through time?	Children will learn about the Geocentric and Heliocentric models of the Universe; the views of Copernicus/Galileo and how they contrast with the views of Ptolemy and Alhazen.
9. What are the key dates in planet discovery?	Children will learn when the planets were first discovered, understanding that ancient Greek and Roman Gods were named after them. They will learn that 5 are visible to the naked eye.

BLACK HORSE HILL JUNIOR SCHOOL - **COMPUTING** LESSON SEQUENCE

Flat-File databases

Enquiry/ Learning Intention	What the children will know/ Essential knowledge
1. What is a database and what information can it contain?	Children will know what a database is and be able to create a paper version containing 8-10 facts.
2. What are the similarities and differences between a paper and computer based database?	Children will use a computer based database to examine how data can be recorded and viewed. They will learn the terminology 'records' and 'fields'. Comparison of paper based databases (from lesson 1) and computer based databases will be carried out.
3. Can questions be answered by grouping and sorting information?	Children will investigate how records can be grouped. They will then use 'grouping' and 'sorting' to answer questions about the data.
4. Which tools can be used to select specific information?	Children will develop their search techniques about data. They will use advanced techniques to search more than one field.
5. Which computer programs can be used	Children will understand what makes a useful chart and how charts can be used to compare data. They will create charts from data in order to answer questions about it.

to compare data visually?	
6. How can a real-world database be used to ask and answer questions?	Children will take on the role of a travel agent using a real-life flight search database to ask questions and find answers based on set parameters. They will then present the information within a group or pair.

BLACK HORSE HILL JUNIOR SCHOOL - ART LESSON SEQUENCE

Space Art

Enquiry/ Learning Intention	What the children will know/ Essential knowledge
1. Who is Peter Thorpe and why is he famous?	Children will understand that Peter Thorpe is an artist who specialises in Space Art. They will understand the features of his work and what links his different pieces of artwork.
2. How can colours be mixed to produce different colours?	Children will understand what a colour wheel is, how primary colours can be mixed to produce secondary colours and then to produce tertiary colours.
3. How can knowledge of colour mixing be applied to Peter Thorpe style of art?	Children will understand how to use their skills in colour mixing to produce a painting in the style of Peter Thorpe. They will be able to choose and apply the appropriate colour mixing technique to their work.
4. What needs to be included in a plan to produce a piece of Peter Thorpe inspired artwork?	Children will be able to recall the theme, foreground and background of Peter Thorpe artwork. They will be able to apply their findings to produce a plan for a piece of work, annotating to give more detail.
5. How can plans be used to produce a piece of artwork in the correct style?	Children will understand the different techniques that could be used to apply to their artwork. They will trial these, choose appropriate ones and apply it to their work to produce artwork in the style of the artist.

6. How can we evaluate a piece of artwork?	Children will know how to evaluate their own work identifying what works well and what needs to be improved. They will be able to give suggestions for improvements.

BLACK HORSE HILL JUNIOR SCHOOL MUSIC LESSON SEQUENCE

Holst



Enquiry/ Learning Intention	What the children will know/ Essential knowledge
To listen to, review and evaluate music across a range of periods, including the works of great composers and musicians	Children to understand who Gustav Holst was and what his most famous work is. Children to produce a fact file relating to Gustav Holst.
To listen to, review and evaluate music across a range of periods, including the works of great composers and musicians	Children to listen to and evaluate 4 different sections of the Planet Suite. They are to interpret how the music is composed and what instruments are used.
To understand and explore how music is created through pitch, dynamics, tempo, timbre and texture.	Children to understand what the definitions of timbre, pitch, dynamics, tempo and texture mean. They will also understand what the different families of the orchestra are and be able to identify instruments in the different families.
To understand and explore how music is created through pitch, dynamics, tempo, timbre and texture.	Children to show their understanding of the different musical definitions and families of the orchestra to decide which they would choose if they were to write their own piece of music for another planet.

BLACK HORSE HILL JUNIOR SCHOOL - **COMPUTING LESSON SEQUENCE**

VECTOR DRAWING



Enquiry/ Learning Intention	What the children will know/ Essential knowledge
To use drawing tools	Recognise that vector drawings are made using shapes
To create images	Identify the shapes used to make a vector drawing. Understand that each element added to a vector drawing is an object. Objects duplicated can be moved, resized and rotated.
To make effective drawings	Detail can be added to drawing using the zoom tool. Consistency can be achieved by using alignment grids and resize handles. Objects can be modified to create a new image.
To understand how layers are used in vector drawings	Each added object creates a new layer in the drawing. The order of layers can be changed in a vector drawing. Layering can be used to create an image.
To understand how objects can be manipulated.	Part of a drawing can be copied by duplicating several objects. Objects can be grouped and ungrouped. A group of objects can be reused to develop vector drawing.
To use skills to create a vector drawing	Vector drawings can be created for a specific purpose. Vector drawings can be compared to freehand paint drawings.

BLACK HORSE HILL JUNIOR SCHOOL ART LESSON SEQUENCE

Holst



Enquiry/ Learning Intention	What the children will know/ Essential knowledge
To produce creative work, exploring their ideas and recording their experiences.	Children will be able to choose colours, patterns, shapes, words etc for each of the pieces of music. Children will understand how music and art can be linked together.
To produce creative work, exploring their ideas and recording their experiences.	Children will be able to sketch out an image for one of the planets. Children to write sentences which explains why they have chosen that planet and why they have used certain images and colours.
To produce creative work, exploring their ideas and recording their experiences.	Children to decide what types of art medium they could use to produce a piece of art linked to the Planet Suite. They should then decide how they would do it, dab paint, use water colours, thick/thin felt tips etc.