

BLACK HORSE HILL JUNIOR SCHOOL - COMPUTING LESSON SEQUENCE



COMPUTING: Connecting Computers

Enquiry Question	What the children will know/ Essential knowledge
1. How does a digital device work?	To know that digital devices accept inputs and produce outputs. To be able to follow a process. To know these concepts are fundamental to all digital devices.
2. What makes up part of a digital device?	To be able to sort digital and non-digital devices. To identify input and output devices. To describe a simple process in a familiar device or part of a device
3. How do digital devices help us?	To recognise how digital devices can change the way that we work. To explain how they use digital devices for different activities. To compare using digital devices and using non-digital tools to create a piece of work and to identify similarities and differences in these different approaches.
4. How am I connected?	To know that a computer network can be used to share information. To recognise different connections and explain how messages are passed through multiple connections. To recognise why we need a network switch.

5. How are computers connected?	To recognise that a computer network is made up of a number of devices. To know that information can be passed between devices. To explain the role of a switch, server, and wireless access point in a network.
6. What does our school network look like?	To recognise the physical components of a network. To identify how devices in a network are connected together. To identify networked devices around them. To identify the benefits of computer networks.

BLACK HORSE HILL JUNIOR SCHOOL - COMPUTING LESSON SEQUENCE



COMPUTING: Stop-Frame Animation

Enquiry Question	What the children will know/ Essential knowledge
1. Can a picture move?	To know that an animation is a sequence of drawings or photographs. To draw a sequence of pictures to create an effective flip book—style animation. To explain how an animation/flip book works.
2. How do you make a picture move digitally?	To predict what an animation will look like from a sequence of images. To explain why little changes are needed for each frame. To create an effective stop-frame animation.
3. What's the story?	To know it is necessary to plan an animation by breaking it down into its smallest component parts. To plan an animation by breaking down a simple familiar story into settings, characters and events To create a storyboard for a feasible, short animation.
4. How do you use software effectively to	To use the Stop-Frame Animation software consistently and carefully to create a short animation.

<p>create a short animation?</p>	<p>To be aware of techniques such as onion skinning to help make small changes between frames. To review a sequence of frames to check their work. To evaluate the quality of their animation</p>
<p>5. How can we make an animation better?</p>	<p>To reflect upon their own animation, and the animations of others, evaluating what worked well and what worked less well. To suggest improvements they could make to their animations. To make changes to improve their animation based on feedback.</p>
<p>6. What makes an animation performance ready?</p>	<p>To explore adding other media to their animation to improve it further. To give reasons why they added other media to their animation. What did it improve and how? To evaluate the impact of adding other media to their animated film.</p>

BLACK HORSE HILL JUNIOR SCHOOL - SEQUENCE OF LEARNING

Science – Humans and Other Animals

Enquiry/ Learning Intention	What the children will know/ Essential knowledge
Enquiry 1: What is nutrition? Why do humans need to eat?	Unlike plants, humans cannot make their own food. <i>Humans need to eat to get the right nutrition and to stay healthy.</i>
Enquiry 2: What is a balanced diet?	<i>Humans need to eat a balanced diet from a variety of food groups.</i> Foods are grouped into: fruit and vegetables, proteins, carbohydrates, dairy, fibre, fats and oils.
Enquiry 3: What is a skeleton? What are the main functions of the skeleton?	A human skeleton is made of bone, a hard substance that grows as we grow. <i>The human skeleton is responsible for support, movement and protection of the vital organs of the body.</i> <i>Name some of the main bones of the human body.</i> Joints are where two bones meet. Joints allow the skeleton to bend.
Enquiry 4: What is a joint? Where are the joints in the human body?	<i>Joints are where two bones meet. Joints allow the skeleton to bend and move.</i> There are three types of joints in the human body: hinge, ball and socket gliding joints. Identify joints such as; shoulder, elbow, wrist, hip, knee, ankle, spinal vertebrae.
Enquiry 5: How do humans move? What are muscles?	<i>Without muscles the skeleton would not be able to move.</i> Muscles are attached to bones by tendons. Muscles work in pairs and by contracting and relaxing they create movement.

<p>Enquiry 6: Do all animals have skeletons?</p>	<p>Not all animals have the same type of skeleton. Animals are grouped in vertebrates and invertebrates. <i>There are three main types of animal skeleton: exoskeleton, endoskeleton and hydrostatic skeleton.</i> <i>Group animals according to skeleton.</i></p>
<p>Enquiry 7 : How do mammal skeletons compare to the human skeleton?</p>	<p><i>Human and mammal skeletons have mostly the same bones, however, the skeletons can be arranged differently.</i> Compare the human skeleton to an equine skeleton.</p>

BLACK HORSE HILL JUNIOR SCHOOL - SEQUENCE OF LEARNING

Science - Rocks & Soils

Enquiry/ Learning Intention	What the children will know/ Essential knowledge
Enquiry 1: What are rocks?	<p><i>A rock is a naturally occurring solid material.</i></p> Rocks are made from different minerals - natural substances formed by the Earth. Different rocks are made from different combinations of minerals. The Earth's outer solid layer is made from rock. This is called the Earth's crust. Appropriate vocabulary to describe rocks.
Enquiry 2: Are all rocks the same?	Recognise different rocks have different properties. <p><i>Group rocks through observation of properties.</i></p> Identify and name several different rocks recognising their individual properties.
Enquiry 3: What are rocks used for?	Humans have used rocks because of the properties they possess (link to Stone Age to Iron Age). <p><i>Observe how rocks are used in the environment for their particular properties e.g. slate – waterproof.</i></p> Observe use of local rock – sandstone in buildings and former quarries where it occurs.
Enquiry 4: How do rocks form?	<p><i>There are three types of rock: igneous, sedimentary and metamorphic rocks.</i></p> Igneous - formed when molten magma cools, either above or below the surface. Sedimentary - formed by layers of sediment settling one on the other compressed into rock by its own weight. Metamorphic – formed by rocks coming under high temperatures and great pressure. Changes rock.
Enquiry 5: Are all rocks the same hardness? Are all rocks porous?	<p><i>Through investigation, know that rocks have different levels of hardness.</i></p> <p><i>Through investigation, know that rocks have different levels of porosity.</i></p>
Enquiry 6: What is a fossil? How are fossils formed?	<p><i>A fossil is the preserved remains or traces of a dead organism that lived millions of years ago.</i></p> The process by which a fossil is formed is called fossilisation. Explain how a fossil is formed in simple terms.

Enquiry 7: What is soil?	<i>Soil is a mix of organic (natural) and non-organic (non-natural) materials.</i> Organic materials - humus rotting plants, leaves, wood and animal matter. Non-Organic Materials – small rocks, sand, silt, clay, minerals, Identify organic and non-organic materials in a sample of soil.
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BLACK HORSE HILL JUNIOR SCHOOL - SEQUENCE OF LEARNING

History - The Stone Age, Bronze Age & Iron Age

(Children will add growing knowledge of Ages, periods and dates to a timeline throughout this unit of work)

Enquiry/ Learning Intention	What the children will know/ Essential knowledge
Enquiry 1: What was the Stone Age?	Read 'Stone Age Boy' as a source of history to explore how people lived during the Stone Age. Understand people lived in groups and were nomadic. <i>They were hunter gatherers and self-sufficient.</i> Investigate the materials they used and the tasks they carried out for survival. <i>Understand the term 'Age' refers to when a group of people using a specific material i.e. Stone, Bronze and Iron.</i>
Enquiry 2: When was the Stone Age in Britain?	Begin to understand the terms BC and AD. <i>The Stone Age is split into three periods: Palaeolithic, Mesolithic and Neolithic</i> (Old Stone Age, Middle Stone Age and New Stone Age). The Palaeolithic was the longest period of the Stone Age.
Enquiry 3: Who was Cheddar Man?	Cheddar man is the skeleton of a Mesolithic hunter- gatherer that was found in Gough's Cave in Cheddar Gorge. <i>His DNA informed scientists and historians that our ancient ancestors had dark skin, black curly hair and blue eyes</i> , contrary to what was previously thought.
Enquiry 4: What was it like to live in the Mesolithic period before farming? What is hunter/gathering?	Before the spread of farming, <i>humans had to hunt for and gather their food from their surroundings.</i> People lived in tribes and were nomadic, following the food source such as herds of deer. <i>Know some of the foods that made up the diet of Palaeolithic and Mesolithic people.</i>

<p>Enquiry 5: How is modern life similar and different to life in the Mesolithic period?</p>	<p>Compare similarities and differences between people's lives in the Mesolithic period to modern life. Use prior learning and reading (Stone Age Boy, Stone Age Bone Age etc.) to inform learning. <i>Identify similarities and differences. E.g. Mesolithic people had to hunt and gather their food. Modern people go to the supermarket. Mesolithic people wore jewellery. Modern people still wear jewellery.</i> Discuss continuity and change. Consider our connection to the people that lived in the Mesolithic period.</p>
<p>Enquiry 6: How do we know about people from prehistory? What is an archaeological site?</p>	<p><i>We can still see evidence of prehistory in Britain through a range of Stone Age sites.</i> Use digital mapping to find the following sites: Stone Age, Grimes Graves, Silbury Hill, Stone Age, Avebury Henge or Skara Brae. Find the location and date of each site.</p>
<p>Enquiry 7: What is an archaeologist? How do they find out about the Stone Age? What is an artefact?</p>	<p>Understand that because there is no written evidence from the Stone Age in Britain, archaeologists find out about the past by finding and examining artefacts from the period. <i>An archaeologist is a person who studies human history through excavating sites and looks for evidence and artefacts. Know an artefact is an object from the period.</i> Find out about the past by examining a range of reproduction artefacts and archaeological sites in Britain.</p>
<p>Enquiry 8: What is Stone Henge? How was Stone Henge constructed? What was it used for?</p>	<p><i>Understand that Stonehenge is a significant Neolithic (though some areas date back to the Mesolithic) site in Wiltshire, England.</i> Find out about the stages by which Stonehenge was constructed. Consider evidence as to what Stonehenge was used for: a burial site, an enormous calendar, a sacred site? Put forward an opinion based on learning.</p>
<p>Enquiry 9: Why did people move from Nomadic lifestyle to farming by the Neolithic period?</p>	<p>Through the study of Skara Brae in the Orkney Islands in Scotland, they understand <i>that people started to settle and farm the land around them.</i> Understand that Skara Brae is the best preserved Neolithic settlement in Europe dating to 3180 BC. It is a village consisting of ten circular houses built from stone. Look at evidence as to how they lived and farmed the land. Consider how this was different from the Mesolithic period.</p>

<p>Enquiry 10: Who were the Bell Beaker people? What is the Bronze Age?</p>	<p>Know that after the Neolithic Age came the Bronze Age (2300 – 800 BC). <i>Understand it was called the Bronze Age because people had discovered how to make the alloy Bronze from copper and tin which meant they could make stronger weapons and tools.</i> The Beaker people migrated to Britain from Europe from c. 2000 BC bringing with them their culture, ideas, beliefs, rituals and technology. They travelled in long wooden boats rowed by oarsmen. The boats carried people, animals and trading goods (metal from mines, precious swords, pots and jewellery). They replaced much of the existing population. Consider how life changed in Britain.</p>
<p>Enquiry 11: Who was the Amesbury Archer? What does he tell us about beliefs in the Bronze Age?</p>	<p>The Amesbury Archer was a member of the Bell Beaker population. His burial was discovered in 2002 in Amesbury, Wiltshire near Stonehenge. Dated to 2300 BC. <i>Understand how the grave goods found buried with the Amesbury Archer tell us about his life and the beliefs of the people in the Bronze Age</i></p>
<p>Enquiry 12: How was bronze made? What did they make from metals?</p>	<p><i>Understand how bronze is made by smelting and combining copper and tin to form bronze, a stronger material for making weapons and tools.</i> Look at a range of Bronze Age artefacts to understand the craftsmanship of metal work during this time. e.g. The Mold Cape, the Battersea Shield etc.</p>
<p>Enquiry 13: What was the Iron Age? What did people believe the Iron Age?</p>	<p><i>Know that the Bronze Age became the Iron Age with the discovery of iron which is stronger than bronze (800 BC – AD43).</i> Understand that the Iron Age Britains believed in many gods. Gods and goddesses were responsible for various aspects of life, and required gifts or sacrifices. They worshipped in sacred places, like the shores of a lake or a clearing in a wood. Priests known as druids led religious ceremonies.</p>
<p>Enquiry 14: What is a hill fort? What was Maiden Castle?</p>	<p><i>Bronze Age tribes lived in hill forts for protection from other tribes. Consider</i> what this tells us about life during the Iron Age. Maiden Castle in Dorset, England is the largest example of an Iron Age hill fort in Britain. What was life like in an Iron Age hill fort? Know that inside hill forts, families lived in round houses. These were simple one-roomed homes with a pointed thatched roof and walls made from wattle and daub (a mixture of mud and twigs). In the centre of a round house was a fire where meals were cooked in a cauldron.</p>

BLACK HORSE HILL JUNIOR SCHOOL - MUSIC LESSON SEQUENCE



MUSIC: LET YOUR SPIRIT FLY UNIT

Learning Intention	What the children will know/ Essential knowledge
<p>1. To know the meaning of the interrelated dimensions of music: pitch, dynamics and tempo</p>	<p>Find, clap and tap to the pulse of a piece of music. Explore clapping back different rhythms and understand how rhythm is different to pulse. Identify the meaning of the musical terms pitch, tempo (allegro/adagio), dynamics (forte/piano) and explore them whilst playing untuned percussion instruments.</p>
<p>2. To learn to sing in unison a song with a pitch range between do-so</p>	<p>Identify vocals in a piece of music. Identify the verse and chorus within the structure of the song. To know that vocal warm ups are important before singing and that good posture is also important. Start to sing back melodic patterns within a limited pitch range (do-so) altering the pitch of their voices accordingly to match the directionality of pitch.</p>
<p>3. To learn to play simple melodic parts (using C, D, E) in unison showing awareness of</p>	<p>Identify the instruments played in the song 'Let Your Spirit Fly': bass, drums, guitar, keyboard, and synthesizer. Start to clap back and play rhythms they have heard.</p>

<p>both pulse and conductor.</p>	<p>Play simple melodic parts together with others, keeping time, showing awareness of pulse and of a conductor (starting and stopping as signalled.)</p>
<p>4. To identify some basic notation: crotchet and crotchet rests.</p>	<p>Identify crotchet notes and rests and understand how they are used. Start to clap back and play rhythms they have heard. Clap back and play rhythms created on rhythm grids.</p>
<p>5. To use dot notation to represent C, D and E To represent these notes on a stave</p>	<p>To identify the difference in pitch between C, D and E by recording melodic patterns of these notes using dot notation. To understand some basic music notation: stave, treble clef To identify the position of C, D and E on a treble clef and represent them using crotchet notes.</p>
<p>6. To improvise using both their voices and instruments on 2 adjacent notes showing awareness of higher and lower pitch.</p>	<p>To use copying back to improvise using both their voices and instruments on 2 adjacent notes showing awareness of higher and lower pitch. To represent their improvised patterns using dot notation.</p>
<p>7. To compose their own simple melodies by using 2 adjacent notes in the treble clef stave.</p>	<p>To understand how to use the 'Music Explorer' App to compose simple melodies using just two adjacent notes. To know that starting and finishing on the same note gives their composition a feeling of completion.</p>

	<p>To know that to play a composition and for it to be memorable it needs to use repetition and not jump around too much.</p>
<p>8. To rehearse and perform their singing and compositions as a whole class.</p>	<p>To sing in unison melodic patterns within a limited pitch range (do-so) altering the pitch of their voices accordingly to match the directionality of pitch.</p> <p>To show awareness of pulse and conductor when singing and playing parts in unison.</p> <p>To rehearse and perform the song 'Let Your Spirit Fly' with their composed part accurately.</p> <p>To evaluate their performance</p>

BLACK HORSE HILL JUNIOR SCHOOL - MUSIC LESSON SEQUENCE

MUSIC: CHRISTMAS SINGING & PERFORMING



Learning Intention	What the children will know/ Essential knowledge
1. To know how to stand to sing and how to open their mouth to project their voice.	Identify the verse and chorus within the structure of the song. To know that vocal warm ups are important before singing and that good posture is also important. Start to sing back melodic patterns within a limited pitch range altering the pitch of their voices accordingly to match the directionality of pitch.
2. To learn to sing in unison songs with a limited pitch range	Start to sing back melodic patterns within a limited pitch range altering the pitch of their voices accordingly to match the directionality of pitch. Sing simple melodic parts together with others, keeping time, showing awareness of pulse and of a conductor (starting and stopping as signalled.)
3. To perform as a choir singing to an audience.	Perform a song in front of an audience singing as part of a class choir. Perform a song in front of an audience singing as part of a whole school choir. Maintain their part when other parts are sung around them.



Hinduism: Would celebrating Divali at home and in a community bring a feeling of belonging?

Enquiry Question	What the children will know/ Essential knowledge
1. What does it feel like to belong to a group?	Finding others that share a common belief/cause brings a sense of belonging. How feeling part of a wider group makes them feel. What are the advantages? To discover different ways of symbolising that they are part of a group.
2. What does the story of Rama and Sita teach Hindus?	To know that in the story of Rama and Sita goodness overcomes evil. To understand that Hindus believe they should do as much good in the world as possible.
3. What is Divali and how do Hindus celebrate it?	To know that Divali is a Hindu festival. To know that during Divali Hindus worship the goddess of wealth and good fortune, Lakshmi, during Divali. To understand that shared celebration brings a sense of belonging.

<p>4. What happens at home and /or at the temple during Divali?</p>	<p>To know about some of the different practices during Divali (e.g. Rangoli patterns, diva lamps, making sweets, sharing music and food) and to begin to understand their significance.</p> <p>To know that during Divali Hindus feel a strong sense of belonging both to their families and the wider Hindu community.</p>
<p>5. How are Diwali and Christmas traditions the same and different?</p>	<p>To compare Diwali to other celebrations – both family and Christian</p> <p>To identify similarities and differences between Diwali and the Christian festival of Christmas.</p> <p>To understand that shared activities and belief bring a sense of belonging.</p>
<p>6. Would celebrating Diwali at home and in the community bring a sense of belonging to a Hindu child?</p>	<p>To understand that Hindus celebrate Diwali together to bring them a sense of belonging to both their families and their wider community through sharing in beliefs, practices and celebrations.</p> <p>To reflect upon how a Hindu child might feel about their experience of Diwali.</p>
<p>7. What goals do I share with others?</p>	<p>To identify common goals for year 3 with other class members.</p> <p>To identify ways in which they can work together to help each member of the group reach their shared goal.</p> <p>To reflect on whether they think it will be easier or harder to reach their goal with the support of their group.</p>

BLACK HORSE HILL JUNIOR SCHOOL - RE LESSON SEQUENCE

Christianity: Has Christmas lost its true meaning?

Enquiry Question	What the children will know/ Essential knowledge
1. What does Christmas mean to me?	To identify what they do to celebrate Christmas. To reflect upon what Christmas means to them.
2. What is the Christmas story and who believes in it?	To be familiar with the events of the Christmas story. To begin to understand why it is important to Christians.
3. What is the true meaning of Christmas to Christians?	To develop an understanding of the significance of Christmas traditions to Christians (e.g. advent calendar, nativity scene, Christmas carol singing, Christmas cards, Christmas 'tree fairy'.) To know Christmas is important to Christians because they are celebrating the birth of God's son, Jesus, coming to Earth to help people.

<p>4. Has Christmas lost its true meaning?</p>	<p>To reflect upon their initial responses to what Christmas means to them and compare this to the Christian meaning of Christmas.</p> <p>To evaluate whether they believe Christmas has lost its true meaning and why.</p>
<p>5. What gift would you give the world if you could?</p>	<p>To know that Christians believe God sent his son to Earth to help humankind.</p> <p>To reflect upon what single gift they would like to be able to give the world and why.</p>