Bat Lesson Plan

YEAR 3 SCIENCE: ANIMALS INCLUDING HUMANS

Cross curricular links	Curriculum objectives National curriculum 2014	Learning Intention	Teacher notes	Resources	Assessment opportunities
Maths Measuring **English** Speaking and listening **ICT** Research about the pipistrelle bat	**Science - Animals including Humans** Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat. Identify that humans and some other animals have skeletons and muscles for support, protection and movement.		Within class topic on Animals including Humans – discuss bats and what they eat, how and when they hunt and get food. All bats have very big appetites because flying uses up lots of energy. The tiny pipistrelle can eat over 3000 insects in a night! In winter, when there are fewer insects around for them to feed on, bats go into a deep sleep called hibernation to save energy.	**Slide 1** Bat lesson for Year 3 animals including humans **Slide 2** 'Hello Hugh' **Slide 3** What do bats eat?' **Slide 4** Jersey bats eat...	Children understand that bats and other animals get energy from what they eat.
		Can I recognise how the bone structure of a bat's wing supports and protects their bodies and helps them to move and fly?	Watch clips of bats in flight from YouTube and look at images of bats' wings. https://www.youtube.com/watch?v=ANH58bvQq14	**Slide 5** How do bats fly? Worksheet 1 How do bats fly? **Slide 6 & 7** YouTube clip	Children can understand the similarities and differences between the skeleton of a bat and a human. Children recognise how the structure of the bat's wing helps it protect its body and helps it move.
		Can I recognise the similarities and differences between the bone structure of a bat and that of a human?	Look at the skeleton of a bat and discuss how it is similar and different to a human skeleton. Discuss what the bat's wing is made of, the bone structure and how the muscles support the bones. Looking at a diagram of the skeleton of a human arm and a bat's wing – discuss in more detail how the wing is similar to the arm and hand bone structure. https://www.youtube.com/watch?v=Vq0rVBD9mDY	**Slide 8** True flight **Slide 9 – 12** Bats vs Humans **Activity 1** **Slides 13 & 14** How do I compare to a bat? **Slide 15 & 16** YouTube clip	Children recognise how the structure of the bat's wing helps it protect its body and helps it move.

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			Look at the wingspan of the pipistelle bat and discuss what wing span means. Explain that for a pipistrelle bat the wings are around 5 times the length of the bat's body. Ask for a volunteer to hold a measuring tape above the knee of another pupil then measure from their knee to the top of their head. Make it a nice round number and ask the class to times it by 5, then half it for each wing.	**Worksheet 2** Common Pipistrelle **Activity 2** Measure different bat species	Children can measure accurately.
	Design and Technology **Design** use research and develop design criteria to inform the design **Make** select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately · select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities **Evaluate** their ideas and products against their own design criteria and consider the views of others to improve their work	Can I choose and select the appropriate materials to design and make a bat's wing?	The children will then work to turn one member of their group into a bat. The height of the chosen child will need to be multiplied by 5 to find their equivalent wing span. Using metre sticks, dowels, art straw and black bin bags/ black paper, children build their wings and try to attach them to the chosen child, incorporating the child's arm and hand into the design.	**Slide 17** Turn a member of the group into a bat like me! Teacher can choose to use **Activity 3** or the instructions below **To make the wings** • Black bin bags • Black paper • Art straws • Dowel/thin wood • Sellotape • Scissors • String • Black tissue paper	Children can select appropriate materials to make a model.
			At the end of the sessions the children should be able to discuss how the bone structure they have made is similar to a human arm and should be able to reflect on how the bone structure supports the wing, allows movement and helps to protect the body. Reflect also on the success of the wing/ choice of materials used and how this design could be refined.	**Slide 18** Discussion	Children can listen to others and offer their opinion.