L Asghar

Subject –Science Spring 1 Animals including Humans

TAPS Assessment: Investigating the Human Skeleton

Key vocabulary: skeleton, bones, muscles, joints, support, protect, move, skull, ribs, spine

National Curriculum	Week	NC - Coverage	Disciplinary Knowledge	Factual Knowledge	Activity Outline
The national curriculum for Science aims to ensure that all pupils: **Working Scientifically Lower KS2** pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content: § asking relevant questions and using different types of scientific enquiries to answer them § setting up simple practical enquiries, comparative and fair tests § making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers § gathering, recording, classifying and presenting data in a variety of ways to help in answering questions § recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables	1	• Identify that humans have skeletons .	To make careful observations of the human skeleton.	To know that humans have skeletons made from different parts e.g., skull, ribs, pelvis, femur, vertebrae	KWL grid- Assess children's understanding of the human body/parts and functions before introducing BBI. Draw your own skeleton on kraft paper. Ask children to lie down on the paper and trace their body outline. Be sure they take off their shoes and trace around their individual fingers and toes. Use a chart of a human skeleton as a template and have children draw/label in their own bones!
	2	Identify that humans and some other animals have skeletons and muscles for support, protection and movement .	To use secondary sources to research the functions of the skeleton.	To know the functions of the human skeleton namely movement, protection of organs and support.	Show children a concept cartoon (Spellbound Science) and ask children to consider whether Ricky would be better off without any bones.  Children to be taught functions of skeleton – support, protection, and movement. Use secondary sources to research and further support children's' understanding of the functions of the skeleton.
	3	Identify that humans and some other animals have skeletons and muscles for support, protection and movement.		To know that muscles move bones by working in pairs To know that when one muscle contracts then the other relaxes.	Explain to children that they can move their bodies where there are joints between two bones. Next ask children to find joints in their bodies and to consider whether all joints moved in the same way. Show children how the muscles at a joint move the bones. Ask children to create models using elastic bands and card.

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§ reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions § using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions § identifying differences, similarities or changes related to simple scientific ideas and processes § using straightforward scientific evidence to answer questions or to support their findings	**4**	IIdentify that humans and some other animals have skeletons and muscles for support, protection and movement.	To gather, record, (accurate measurements using SI) Presenting data in a variety of ways to help in answering questions.	To know this is a pattern seeking enquiry where scientists make measurements and then try and see if there is a link.	Investigate patterns asking questions such as: ▪ Can people with longer legs run faster or Can people with bigger hands catch a ball better? Children to use their data to look for patterns (or lack of them) when answering their enquiry question.
	5	• Identify that humans and some other animals have skeletons and muscles for support, protection and movement.		I know that animals have joints to help them move. differences between skeletons	Show children images of animals (ladybird, octopus, giraffe) and ask them to decide which one is the odd one out, giving a reason. Ask children to discuss how the ladybird and octopus could move, support and protect themselves without a skeleton. Give children images of skeletons of different animals to compare, contrast and classify.
Subject Content • Identify that humans and some other animals have skeletons and muscles for support, protection and movement. Common Misconceptions Some children may think: • snakes are similar to worms, so they must also be invertebrates • invertebrates have no form of skeleton	**6**	**TAPS Assessment: Investigating the Human Skeleton** **See TAPS plan for further details.**			