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| **Topic heading** | **Syllabus Ref** | **Idea cluster** | **Question 1** | **Question 2** | **Question 3** | **Question 4** |
| **KS3**  **B3:**  **Muscles and Bones** | **B3:**  **Muscles and Bones** | **Skeletons** | **Q:**  **Vertebrates have internal skeletons for which two main functions?**  **A: The protection of vital organ and to allow movement.**  **B: The protection of vital organs and to provide support.**  **C: To allow movement and to provide support**  **D: To allow movement by allowing muscles to work** | **Q: What parts of your skeleton allow movement to take place?**  **A: Muscles**  **B: Tendons**  **C: Ligaments**  **D: Joints** | **Q: What are produced in the bone marrow of flat and particularly long bones?**  **A: White blood cells**  **B: Red blood cells**  **C: Platelets**  **D: Antibodies** | **Q: Where are red blood cells produced?**  **A: Bone Marrow**  **B: Kidneys**  **C: Liver**  **D: Blood** |
|  |  |  | **B** | **D** | **B** | **A** |
| **KS3**  **B3:**  **Muscles and Bones** | **B3:**  **Muscles and Bones** | **Muscles** | **Q: What connects muscles to bones?**  **A: Ligaments**  **B: Tendons**  **C: Tissue**  **D: Cartilage** | **Q: Muscles are able to move our skeleton because they can…**  **A: Contract and pull bones**  **B: Contract and push bones**  **C: Relax and pull bones**  **D: Relax and push bones** | **Q: Muscles cells are specialised because they are made of what, to allow them to carry out their job?**  **A: Fibres that are able to relax and move**  **B: Fibres that are able to contract**  **C: Fibres that are strong**  **D: Fibres that are unable to move** | **Q: Muscles work in antagonistic pairs in which of the following ways?**  **A: Both muscles contract allowing the joint to move in both directions**  **B: Both muscles relax allowing the joint to move in both directions**  **C: One muscle contracts whilst the other relaxes allowing the joint to move in one direction**  **D: One muscle contracts whilst the other relaxes allowing the joint to move in both directions** |
|  |  |  | **B** | **A** | **B** | **D** |
| **KS3**  **B3:**  **Muscles and Bones** | **B3:**  **Muscles and Bones** | **Muscles** | **Q: Which of the following statements is correct?**  **A: Larger muscles exert larger forces and are attached to stronger bones**  **B: Larger muscles exert smaller forces and are attached to stronger bones**  **C: Larger muscles exert larger forces and are attached to weaker bones**  **D: Smaller muscles exert smaller forces and are attached to stronger bones** | **Q: A lack of what in your diet will lead to muscle loss over time?**  **A: Carbohydrate**  **B: Fat**  **C: Fibre**  **D: Protein** | **Q: Protein is needed to make….**  **A: Muscle**  **B: Bone**  **C: Blood**  **D: Teeth** | **Q: What evolutionary adaptation has allowed organisms to grow stronger if the conditions they live in require it?**  **A: When muscles are damaged significantly through use they grow back stronger**  **B: When muscles are damaged slightly through use they grow back weaker**  **C: When muscles are damaged slightly through use they grow back stronger**  **D: When muscles are damaged slightly through use they return to their original state** |
|  |  |  | **A** | **D** | **A** | **C** |
| **KS3**  **B3:**  **Ecoystems** | **B3:**  **Ecoystems** | **Biodiversity** | **Q: Which term describes the variety of organism in different ecosystems and shows the wide range of life on earth?**    **A: Variation**  **B: Diversity**  **C: Biology**  **D: Biodiversity** | **Q: Which Biological sampling methods can be used to estimate the distribution and abundance of species within an ecosystem?**    **A: Quadrats and Transects**  **B: Quadrats and Measuring**  **C: Counting and Transects**  **D: Counting and Measuring** | **Q: Complete the following sentence. Quadrats and Transects are used to…..?**    **A: Estimate the distribution and abundance of species within an ecosystem**  **B: Estimate the number and abundance of species within an ecosystem**  **C: Estimate the distribution and position of species within an ecosystem**  **D: Estimate the number of different species within an ecosystem** | **Q: Plants are needed by animals for food but animals then disperse seeds in their excrement.**  **This is an example of what in an ecosystem?**  **A: A Food Chain**  **B: Interdependence**  **C: Dependence**  **D: Energy Transfer** |
|  |  |  | **D** | **A** | **A** | **B** |
| **KS3**  **B3:**  **Ecoystems** | **B3:**  **Ecoystems** | **Food Chains and Webs** | **Q: The arrows within a food chain show the movement of what from one trophic level to the next?**    **A: Biomass**  **B: Energy**  **C: Mass**  **D: Food** | **Q: What is lost at each stage of a food chain and how can you limit this loss?**    **A: Energy is lost at each level. This can be reduced by having a shorter food chain**  **B: Energy is lost at each level. This can be reduced by having a longer food chain**  **C: Biomass is lost at each level. This can be reduced by having a shorter food chain**  **D: Biomass is lost at each level. This can be reduced by having a longer food chain** | **Q: Interconnection between different food chains are shown by what?**    **A: Food Webs**  **B: Pyramids of Number**  **C: Pyramids of Biomass**  **D: Food Maps** | http://tse2.mm.bing.net/th?id=OIP.M47df791ade8865d6c25e21d366ac9fdeH0&w=200&h=135&c=7&rs=1&qlt=90&o=4&pid=1.1  **Q If the population of grasshoppers was reduced by disease it would have what effect on the rest of the food web?**  **A: No effect to other organisms**  **B: It would affect multiple organisms**  **C: It would increase the number owls only**  **D: It would decrease the number of mice only** |
|  |  |  | **B** | **A** | **A** | **B** |