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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** |