## **Secondary Science Scheme of Work Proforma:**

| Module title / topicAdaptation in animals (B1b 5.1) | Duration of scheme 4   |  |  |  |  |
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| <b>Year Group</b> 10                                | Set (if applicable) A4 |  |  |  |  |

| Title                            | Learning<br>Objectives  | Learning<br>Outcomes   | NC ref.  | Suggested<br>Activities  | Resources   | Health &<br>Safety                                | Links to Other Areas – Numeracy, Literacy, ICT and SMCS  | Assessment   | H/work         |
|----------------------------------|---|--|--|--|---|---|--|--|----------------|
| Adaptation in animals and plants | Students will learn why animals and plants develop adaptations to the environment to understand what is volume ratio? - to define the term adaptation as well describe examples of animals adapted to survive in cold and dry climates. | Students will be able to learnthat animals and plants are adapted for survival in their particular environmentthat volume ratio is the relationship between body size and surface areato describe the adaptations shown by plants in dry climates. | AQA GCSE Science Topic B1b 5.1 (Adaptation in animals and plants). | Students will watch a video about adaptation in animals and answer some questions (page 85) about the topic. Revision booklet made by the trainee teacher to support pupils. Each pupils will make a short presentation about an animal adaptation to the environment. | Computer Video Revision booklet Text book Power Point | Lesson totally safe for pupils without practical. | Literacy by writing some notes and by developing communication skills during presentation. ICT used to show the video. | 1 <sup>st</sup> lesson to get<br>know pupils and<br>be aware of<br>some<br>misconceptions<br>as well pupils<br>subject<br>knowledge. | No<br>homework |

| Adaptation in animals and plants           | Students will learn  -to define and describe reasons for competition in animals and plants to survive.   | Students will be able to learn  -to understand that competition is necessary for survival.  | AQA text book, GCSE Science Topic B1b 5.1 (Adaptation in animals and plants).   | Starter activity to recap last lesson. Pupils will answer to a short quiz recapping last lesson main ideas.  Pupils will read the revision booklet and answer to summary questions(page 87) Class notes if necessary.   | Computer AQA science text book Quiz Exercise books Revision Booklet         | Lesson totally safe for pupils without practical. | Literacy by writing some notes and by developing communication skills during presentation. ICT used to show the video. Citizenship when teacher speaks about animals' extinction. | Pupils' summary<br>questions.  | Worksheet<br>(page 89)  |
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| Plants + Competition in Animals and Plants | Students will  learn how are plants adapted to live in dry and hot conditions? - learn to explain what is competition and why do organisms complete for? | Students will be able to  - Understand that plants that live in dry places have adaptations to help reducing water loss.  - explain that animals and plants often compete for food and territories. | Biology, GCSE Science, text book AQA Science, unit B1b 5 - Adaptation for survival (Adaptation in Plants/Compe tition in animals and plants). | As a starter students will watch the video that they produced by making the posters about adaptation in animals.  During main activity students will watch a cactus video, and will have a leave example to draw and label it.  Final true and false quiz to scaffold some ideas. | Computer Power point White board Booklets Speakers Video Paper Books leaves | Lesson<br>totally safe<br>for pupils.             | Students will be able to learn the lesson topic using some kinaesthetic learning styles; literacy skills and citizenship.   | Assessing pupils work as well assessing pupils subject knowledge by Q+A. | Students will have a worksheet to read and try to answer to one of the questions about ways in which plants can overcome the problems of growing in the shade of another plant. |

| Why do animals and plants compete for? | Students will learn  to explain what competition is and why do organisms (plants and animals) complete for? | Students will be able to  explain that animals and plants often compete for food and territories. | Ks4 Biology, GCSE Science, text book AQA Science, unit B1b 5 - Adaptation for survival (Competition in animals and plants). | As a starter students will play a game by trying to find in silence, the right pair that competes with them.  Note: Good game to introduce the idea of competition between animals and competition between plants.  After students found the right animal/plant pair that compete, they need together to produce a role play explaining why they compete for?  Students will draw a diagram that recaps the lesson main ideas.  Students will have a short quiz | Computer Projector Cards White board Boardworks Books paper | Lesson<br>totally safe<br>for class. | Students will be able to learn the lesson topic using some kinaesthetic learning styles; literacy skills and citizenship. | Assessing pupils developing the ability of linking kinaesthetic activities with their learning and subject knowledge.  Assessing students' role play.  Individual and class assessment. | No<br>homework<br>for this<br>lesson. |
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|  |   |   |   | about the topic using letter cards.   |   |                                      |   |   |                                       |