GCSE Biology Variation Checklist

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| **Lesson and success criteria** | Learned in lesson | Revised | Confident |
| **Lesson 1: Variation** |  |  |  |
| **V1** | State what the term variation means.  |  |  |  |
| **V2** | Carry out data collection to investigate the range of variation within the class. |  |  |  |
| **V3** | Explain the causes of variation with examples. |  |  |  |
| **V4** | **Challenge -** Compare and contrast intraspecific and interspecific variations. |  |  |  |
| **Lesson 2: Natural selection** |  |  |  |
| **V5** | State what the terms mutation and species mean.  |  |  |  |
| **V6** | Describe the main stages of natural selection. |  |  |  |
| **V7** | Explain why mutation may lead to a more rapid change in a species. |  |  |  |
| **V8** | **Challenge -** Create a model to demonstrate natural selection. |  |  |  |
| **Lesson 3: Evolution** |  |  |  |
| **V9** | State what the term evolution means.  |  |  |  |
| **V10** | Describe Darwin and Lamarck’s theories of evolution. |  |  |  |
| **V11** | Compare and contrast these two theories. |  |  |  |
| **V12** | **Challenge –** Justify why scientists accept Darwin’s theory of evolution by natural selection. |  |  |  |
| **Lesson 4: Evidence for evolution** |  |  |  |
| **V13** | Describe how Darwin’s theory is supported by evidence. |  |  |  |
| **V14** | Explain how fossils show that organisms have changed over time. |  |  |  |
| **V15** | Justify why Darwin’s theory has only been gradually accepted. |  |  |  |
| **V16** | **Challenge –** Compose an argument for and against the theory of evolution.  |  |  |  |
| **Lesson 5: Speciation** |  |  |  |
| **V17** | Suggest reasons that can cause isolation.  |  |  |  |
| **V18** | Describe how geographical isolation may result in the development of new species. |  |  |  |
| **V19** | Explain the speciation can vary in a range of different organisms. |  |  |  |
| **V20** | **Challenge –** Compare and contrast allopatric and sympatric speciation. |  |  |  |
| **Lesson 6: Extinction** |  |  |  |
| **V21** | Describe why some organisms become extinct. |  |  |  |
| **V22** | Explain why it is important to try to conserve endangered species. |  |  |  |
| **V23** | Evaluate strategies that can be used to conserve endangered species. |   |  |  |
| **V24** | **Challenge -** Critically evaluate whether Ski Dubai should house penguins. |  |  |  |