|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| What students should be able to do | What students should know and understand | | | |
| Earth Spheres  Hydrosphere  Atmosphere  Lithosphere  Biosphere | Earth layers  Lithosphere  Asthenosphere  Mantle  Outer core | Plate Tectonics  Major tectonic plates  Causes and/or effects of tectonic movements | Cycles  hydrologic cycle  rock cycle  atmospheric cycles (weather, climate, seasons)  Causes and/or effects of cycles |
| Systems | | | | |
| Identify essential and/or non-essential or less essential components of a given system | ✓ | ✓ | ✓ | ✓ |
| Predict the results of a given change to a system  1. Removal of a given part(s)  2. Addition of a part(s)  3. Changes to a part(s) of a system | ✓ | ✓ | ✓ | ✓ |
| Measurements | | | | |
| 1. Chose appropriate tools and/or units  2. Make and/or record measurements using the precision limits of the tool. | ✓ | ✓ | ✓ | ✓ |
| Models | | | | |
| Identify the limits of a given model | ✓ | ✓ | ✓ | ✓ |
| Recognize the advantages of a given model | ✓ | ✓ | ✓ | ✓ |
| Construct a model from given information | Constructed response | Constructed response | Constructed response | Constructed response |
| Using evidence | | | | |
| Recognize evidence that supports given concept | ✓ | ✓ | ✓ | ✓ |
| Recognize evidence that fails to support given concept | ✓ | ✓ | ✓ | ✓ |
| Develop a scientific investigation | | | | |
| Identify testable question or hypothesis | ✓ | ✓ | ✓ | ✓ |
| Identify steps required to complete an investigation | ✓ | ✓ | ✓ | ✓ |
| Draw conclusions from data | ✓ | ✓ | ✓ | ✓ |
| Technical Information | | | | |
| Analyze technical information | ✓ | ✓ | ✓ | ✓ |

Tools will include rulers, graduated cylinders, balances electronic and/or beam, anemometer, pH meter and/or paper, rain gauge,

Evidence or data includes quantitative and qualitative data

Given information may include text, diagrams, or data

Check marks indicate things that can be tested in a paper and pencil format.

More skills and/or more content can be added as required.