**Year Ten - Earth and Space Science - Program 2016**

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| **WEEK** | **STUDENT UNDERSTANDINGS** | **ACTIVITIES** | **TEXT REFERENCE** | **ASSESSMENT** |
| 1 | Global systems, including the carbon cycle, rely on interactions involving the biosphere, lithosphere, hydrosphere and atmosphere (**ACSSU189**)  modelling a cycle, such as the water, carbon, nitrogen or phosphorus cycle within the biosphere (**ACSSU189**) |  | Recycling in nature  6.1 |  |
| 2 | investigating how human activity affects global systems (**ACSSU189**)  explaining the causes and effects of the greenhouse effect (**ACSSU189**)  investigating the effect of climate change on sea levels and biodiversity(**ACSSU189**)  considering the long-term effects of loss of biodiversity (ACSSU189) |  | Natural influences on climate  6.2 | Global Systems Assessment |
| 3 | investigating currently occurring changes to permafrost and sea ice and the impacts of these changes (**ACSSU189**)  examining the factors that drive the deep ocean currents, their role in regulating global climate, and their effects on marine life (**ACSSU189**) |  | Human influence on climate  6.3 |  |
| 4 | considering the role of science in identifying and explaining the causes of climate change (**ACSHE191**) |  | Changing environment  6.4 |  |
| 5 | Revision and Test |  |  | Mid Topic Test |
| 6 | identifying the evidence supporting the Big Bang theory, such as Edwin Hubble’s observations and the detection of microwave radiation (**ACSSU188**) |  | Stars  7.1 |  |
| 7 | recognising that the age of the universe can be derived using knowledge of the Big Bang theory (**ACSSU188**) |  | Cosmology  7.2 | Universe Assessment |
| 8 | describing how the evolution of the universe, including the formation of galaxies and stars, has continued since the Big Bang (**ACSSU188**) |  | Cosmology  7.2 |  |
| 9 | using a range of representations, including mathematical and symbolic forms, to communicate science ideas (**ACSIS208**) |  | Earth and life  7.3 |  |
| 10 | Revision and Test |  |  | End Topic Test |

**Students are expected to read the relevant chapters in their own time. Any information in the listed chapters may be covered in a test, even if it is not explicitly covered in class.**

**Assessment** Space Assessment 15

Mid Topic Test 30

Cycles Assessment 15

End Topic Test 30

Homework / Classwork 10