Year 7: Earth and Space- The Earth's Resources

	Check	Date
Revise assumed knowledge: **SC3-8ES** describes how discoveries by people from different cultures and times have contributed to advancing scientific understanding of the solar system **SC3-9ES** explains rapid change at the Earth's surface caused by natural events, using evidence provided by advances in technology and scientific understanding	☐	
ES3 Scientific knowledge influences the choices people make in regard to the use and management of the Earth's resources.		
TYPES OF RESOURCES		
4ES3a classify a range of the Earth's resources as renewable or non-renewable (ACSSU116)	☐	
Define renewable and non-renewable resources	☐	
Distinguish between renewable and non-renewable resources, giving **examples** of each	☐	
4ES3b outline features of some non-renewable resources, including metal ores and fossil fuels	☐	
Define resource, metal ore and fossil fuel	☐	
Outline the main features of the following non-renewable resources; Metal ores, Coal, Gas and Crude oil	☐	
4ES3c describe uses of a variety of natural and made resources extracted from the biosphere, atmosphere, lithosphere and hydrosphere	☐	
4ES3f outline the choices that need to be made when considering whether to use scientific and technological advances to obtain a resource from Earth's spheres	☐	
Define the terms biosphere, atmosphere, lithosphere and hydrosphere	☐	
Identify how specific examples of natural and made resources are extracted from the biosphere, atmosphere, lithosphere and hydrosphere	☐	
Describe some of the uses of resources extracted from the biosphere (biofuels), atmosphere (wind power), lithosphere (fossil fuels and metal ores) and hydrosphere (food resources, hydroelectricity)	☐	
Describe how a power station works	☐	
CODE: 7ES20 First-Hand Investigation: Model power station (Oxford pg264)	☐	
Outline how nuclear energy is created	☐	
Compare Australia to other countries dependence on nuclear energy (Oxford pg266)	☐	
Describe environmental concerns regarding extraction, use and disposal of nuclear waste	☐	
CODE: 7ES21 First-Hand Investigation: Muffin mining (Oxford pg270)	☐	
Demonstration: Obtaining a metal from a mineral (Oxford pg271). Extract Copper from Copper Sulfate OR Extract Copper from Copper Oxide	☐	
LITERACY SET 1: COSMOS ARTICLE	☐	
Assessment: Oxford online test- Types of Resources Students to achieve 100% in Support and Consolidate **OR** Consolidate and Extend	☐	
MANAGING RESOURCES		
4ES3e discuss different viewpoints people may use to weight criteria when making decisions about the use of a major non-renewable resource found in Australia	☐	
Discuss different viewpoints, providing examples of pros and cons, for the use of non-renewable resources in Australia	☐	
4ES3d investigate some strategies used by people to conserve and manage non-renewable resources (e.g. recycling) and the alternative use of natural and made resources	☐	
Group research task- Investigate some strategies used by people to conserve and manage non-renewable resources (e.g. three R's (reduce, reuse, recycle))	☐	

Group research task- Alternate sources of energy e.g. Wind power, solar power, hydro-electric power, tidal and wave power and geothermal energy	☐	
CODE: 7ES22 First-Hand Investigation: Solar cells (Oxford pg276)	☐	
ES4 Science understanding influences the development of practices in areas of human activity such as industry, agriculture and marine and terrestrial resource management. (ACSHE121, ACSHE136)		
4ES4d research how Aboriginal and Torres Strait Islander peoples' knowledge is being used in decisions to care for country and place (e.g. terrestrial and aquatic resource management)	☐	
Explain the importance of soil as a resource	☐	
CODE: 7ES23 First-Hand Investigation: Looking at soil (Oxford pg282)	☐	
CODE: 7ES24 First-Hand Investigation: What's in soil (Oxford pg282)	☐	
CODE: 7ES25 First-Hand Investigation: How well do soils hold water (Oxford pg282)	☐	
Compare current soil management strategies to those used decades ago. (Oxford pg283)	☐	
Outline how Indigenous peoples' have influenced resource management in Australia (Nomadic people, controlled burning, sustainable hunting)	☐	
Discuss the difference between scientific, legal, cultural and moral debate using Indigenous resource management in Australia (e.g. mining in the Kimberly or Kakadu)	☐	
LITERACY SET 2: MIXED ACTIVITIES	☐	
Assessment: Oxford online test- Managing Resources Students to achieve 100% in Support and Consolidate **OR** Consolidate and Extend	☐	
WATER AS A RESOURCE		
4ES4a identify that water is an important resource that cycles through the environment (ACSSU222)	☐	
Identify water as an important resource that is recycled through the environment	☐	
Discuss some of the reasons behind the limited water availability in Australia (varied rainfall, large landmass, arid environment)	☐	
4ES4b explain the water cycle in terms of the physical processes involved	☐	
Define the terms cycle, evaporation, transpiration, precipitation, condensation, ground water	☐	
Identify that there is a fixed amount of water on Earth that is cycled through the environment	☐	
Explain the physical processes involved water cycle	☐	
CODE: 7ES26 First-hand investigation: Making clouds	☐	
4ES4c demonstrate how scientific knowledge of the water cycle has influenced the development of household, industrial and agricultural water management practices	☐	
Define sedimentation; filtration; flocculation; chlorination; fluoridation	☐	
Identify knowledge of the water cycle has influenced water management (desalination plants)	☐	
Describe the process of preparing drinking water: Sedimentation; filtration; flocculation; chlorination; fluoridation	☐	
NUMERACY AND SKILLS SET	☐	
Assessment: Oxford online test- Water as a Resource Students to achieve 100% in Support and Consolidate **OR** Consolidate and Extend	☐	
Assessment: EARTH'S RESOURCES CHAPTER TEST	☐	