



Links to the Western Australian Curriculum

This scope and sequence provides an overview of how *ScienceWorld 7* covers the Western Australian Curriculum. The focus is on the Science Understanding strand, although only some of the Science as a Human Endeavour content and elaborations are covered in this version of the scope and sequence. Included online in the teacher support are curriculum scope and sequence guides that detail how *ScienceWorld* covers the Western Australian Curriculum content descriptions across all four books, and these also include a full mapping of the Science as a Human Endeavour and Science Inquiry Skills strands.

Abbreviations:

SHE: Science as a Human Endeavour

BS: Biological Sciences

CS: Chemical Sciences

ESS: Earth and Space Sciences

PS: Physical Sciences

ScienceWorld 7

Chapter & Unit titles	Science Understanding	Elaborations
1 Introduction to the lab		
1.1 Laboratory equipment	Science Inquiry Skills	
1.2 Safety in the laboratory	Science Inquiry Skills	
1.3 Using a Bunsen burner	Science Inquiry Skills	
1.4 Science is investigating	Science Inquiry Skills	
2 Working scientifically		
2.1 Inferring and predicting	Science Inquiry Skills	
2.2 Measuring	Science Inquiry Skills	
2.3 Using graphs	Science Inquiry Skills	
2.4 Experimenting	Science Inquiry Skills	
3 Forces		
3.1 Forces around you	PS: Change to an object's motion is caused by unbalanced forces, including Earth's gravitational attraction, acting on an object (ACSSU117)	<ul style="list-style-type: none"> investigating the effects of applying different forces to familiar objects investigating common situations where forces are balanced, such as stationary objects, and unbalanced, such as falling objects
3.2 Frictional forces	PS: Change to an object's motion is caused by unbalanced forces, including Earth's gravitational attraction, acting on an object (ACSSU117)	<ul style="list-style-type: none"> investigating the effects of applying different forces to familiar objects investigating common situations where forces are balanced, such as stationary objects, and unbalanced, such as falling objects
3.3 Gravitational forces	PS: Change to an object's motion is caused by unbalanced forces, including Earth's gravitational attraction, acting on an object (ACSSU117)	<ul style="list-style-type: none"> exploring how gravity affects objects on the surface of Earth



4 Simple machine technology		
4.1 Simple machines	PS: Change to an object's motion is caused by unbalanced forces, including Earth's gravitational attraction, acting on an object (ACSSU117)	<ul style="list-style-type: none"> investigating a simple machine such as a lever or a pulley system
4.2 Pulleys and gears	PS: Change to an object's motion is caused by unbalanced forces, including Earth's gravitational attraction, acting on an object (ACSSU117)	<ul style="list-style-type: none"> investigating a simple machine such as a lever or a pulley system
4.3 How things fly	PS: Change to an object's motion is caused by unbalanced forces, including Earth's gravitational attraction, acting on an object (ACSSU117)	<ul style="list-style-type: none"> investigating a simple machine such as a lever or a pulley system investigating common situations where forces are balanced, such as stationary objects, and unbalanced, such as falling objects
5 Classifying living things		
5.1 Classifying things	BS: Classification helps organise the diverse group of organisms (ACSSU111)	<ul style="list-style-type: none"> grouping a variety of organisms on the basis of similarities and differences in particular features using scientific conventions for naming species using provided keys to identify organisms surveyed in a local habitat
5.2 The five kingdoms	BS: Classification helps organise the diverse group of organisms (ACSSU111)	<ul style="list-style-type: none"> grouping a variety of organisms on the basis of similarities and differences in particular features using scientific conventions for naming species using provided keys to identify organisms surveyed in a local habitat
5.3 Animals and plants	BS: Classification helps organise the diverse group of organisms (ACSSU111)	<ul style="list-style-type: none"> grouping a variety of organisms on the basis of similarities and differences in particular features using scientific conventions for naming species using provided keys to identify organisms surveyed in a local habitat
Doing a project	Science Inquiry Skills	
6 Ecosystems		
6.1 Living in a food web	BS: Interactions between organisms can be described in terms of food chains and food webs; human activity can affect these interactions (ACSSU112)	<ul style="list-style-type: none"> constructing and interpreting food chains and food webs to show relationships between organisms in an environment recognising the role of microorganisms within food chains and food webs
6.2 Ecosystems	BS: Interactions between organisms can be described in terms of food chains and food webs; human activity can affect these interactions (ACSSU112)	<ul style="list-style-type: none"> constructing and interpreting food chains and food webs to show relationships between organisms in an environment recognising the role of microorganisms within food chains and food webs
6.3 Ecosystems under threat	BS: Interactions between organisms can be described in terms of food chains and food webs; human activity can affect these interactions (ACSSU112)	<ul style="list-style-type: none"> researching specific examples of human activity, such as the use of fire by traditional Aboriginal people and the effects of palm oil production in Sumatra and Borneo



7 Earth, moon and sun		
7.1 How the Earth moves	ESS: Predictable phenomena on Earth, including seasons and eclipses, are caused by the relative positions of the sun, Earth and the moon (ACSSU115)	<ul style="list-style-type: none"> • comparing times for the rotation of Earth, the sun and moon, and comparing the times for the orbits of Earth and the moon • explaining why different regions of the Earth experience different seasonal conditions
7.2 Phases, eclipses and tides	ESS: Predictable phenomena on Earth, including seasons and eclipses, are caused by the relative positions of the sun, Earth and the moon (ACSSU115)	<ul style="list-style-type: none"> • modelling the relative movements of the Earth, sun and moon and how natural phenomena such as solar and lunar eclipses and phases of the moon occur
7.3 Discovering space	SHE: Scientific knowledge has changed peoples' understanding of the world and is refined as new evidence becomes available (ACSHE119)	<ul style="list-style-type: none"> • investigating how advances in telescopes and space probes have provided new evidence about space
8 Separating mixtures		
8.1 What's a mixture?	CS: Mixtures, including solutions, contain a combination of pure substances that can be separated using a range of techniques (ACSSU113)	<ul style="list-style-type: none"> • recognising the differences between pure substances and mixtures and identifying examples of each
8.2 Solutions	CS: Mixtures, including solutions, contain a combination of pure substances that can be separated using a range of techniques (ACSSU113)	<ul style="list-style-type: none"> • recognising the differences between pure substances and mixtures and identifying examples of each • identifying the solvent and solute in solutions
8.3 Separating mixtures	CS: Mixtures, including solutions, contain a combination of pure substances that can be separated using a range of techniques (ACSSU113)	<ul style="list-style-type: none"> • investigating and using a range of physical separation techniques such as filtration, decantation, evaporation, crystallisation, chromatography and distillation • exploring and comparing separation methods used in the home
9 Sustainable Earth		
9.1 Water as a resource	ESS: Water is an important resource that cycles through the environment (ACSSU222)	<ul style="list-style-type: none"> • considering the water cycle in terms of changes of state of water • investigating factors that influence the water cycle in nature • exploring how human management of water impacts on the water cycle
9.2 Sustainable resources	ESS: Some of Earth's resources are renewable but others are non-renewable (ACSSU116)	<ul style="list-style-type: none"> • considering what is meant by the term 'renewable' in relation to the Earth's resources • considering timescales for regeneration of resources
9.3 Minerals and energy	ESS: Some of Earth's resources are renewable but others are non-renewable (ACSSU116)	<ul style="list-style-type: none"> • considering what is meant by the term 'renewable' in relation to the Earth's resources • considering timescales for regeneration of resources