Year 8: Living World- Ecosystems

	Check	Date
Revise assumed knowledge: **ST3-10LW** describes how structural features and other adaptations of living things help them to survive in their environment **ST3-11LW** describes some physical conditions of the environment and how these affect the growth and survival of living things	☐	
LW5 Science and technology contribute to finding solutions to conserving and managing sustainable ecosystems.		
INTERACTIONS BETWEEN ORGANISMS IN ECOSYSTEMS		
4LW5a. construct and interpret food chains and food webs, including examples from Australian ecosystems	☐	
4LW5b.describe interactions between organisms in food chains and food webs, including producers, consumers and decomposers (ACSSU112)	☐	
Define the terms community, habitat, ecosystem, food chain, food web, producer, consumer, autotroph, heterotroph and decomposer	☐	
Identify that ultimately all energy in ecosystems comes from the Sun	☐	
Identify organisms as: producers, consumers, decomposers, herbivores, carnivores, omnivores and detritivores	☐	
Describe interactions between organisms in food chains and food webs, including producers, consumers and decomposers	☐	
Construct a range of **food chains** of increasing complexity, include Australian examples	☐	
Construct a range of **food webs** of increasing complexity, include Australian examples	☐	
4LW5d. predict how human activities can affect interactions in food chains and food webs, including examples from Australian land or marine ecosystems (ACSSU112) ⚙	☐	
Describe how common human activities affect natural ecosystems in the short and long term e.g. deforestation, urbanisation, introduced species, nitrification and algal blooms	☐	
Describe how Aboriginal and Torres Strait Islander knowledge such as care of waterways or sustainable management of the environment is used to inform scientific decisions to care for Country and Place.	☐	
LITERACY SET 1: COSMOS ARTICLE	☐	
Assessment: Oxford online test- Interactions between organisms in ecosystems Students to achieve 100% in Support and Consolidate **OR** Consolidate and Extend	☐	
MICROORGANISMS IN ECOSYSTEMS		
4LW5c. describe examples of beneficial and harmful effects that micro-organisms can have on living things and the environment	☐	
Define the terms microorganism, bacteria, protozoa, fungi and pathogen	☐	
CODE: 8LW2 First-Hand Investigation: Microorganisms in the environment. Use agar plates containing nutrient agar to culture microorganisms isolated from around the school (Oxford pg22)	☐	
Identify examples of **beneficial** microorganisms	☐	
Describe the effects that **beneficial microorganisms** have on living things and the environment	☐	
CODE: 8LW3 First-Hand Investigation: Making yoghurt (Oxford pg28)	☐	
Identify examples of **harmful** microorganisms	☐	
Describe the effects **harmful microorganisms** have on living things and the environment	☐	

LITERACY SET 2: MIXED ACTIVITIES	☐	
Assessment: Oxford online test- Microorganisms in ecosystems Students to achieve 100% in Support and Consolidate **OR** Consolidate and Extend	☐	
MANAGING ECOSYSTEMS		
4LW5e. explain, using examples, how scientific evidence and/or technological developments contribute to developing solutions to manage the impact of natural events on Australian ecosystems 🐊🦘	☐	
Define the terms ecology, ecologist, natural events, biodiversity and conservation	☐	
Identify some common natural events in Australia e.g. bushfire, flood, drought, earthquake and cyclone	☐	
Describe possible short term and long term impacts of these nature events (loss of biodiversity, loss of habitat, food supply, water contamination, soil erosion)	☐	
Explain, using examples, how scientific evidence and/or technological developments contribute to developing solutions to manage the impact of natural events on Australian ecosystems	☐	
Describe conservation efforts in Australia at the local, community and national level	☐	
Explain the importance of conserving biodiversity e.g. health of biosphere, biological resources, social and cultural value	☐	
4LW5f. describe how scientific knowledge has influenced the development of practices in agriculture, e.g. animal husbandry or crop cultivation to improve yields and <u>sustainability</u>, or the effect of plant-cloning techniques in horticulture 🌱🐊	☐	
Define the terms animal husbandry, crop cultivation, horticulture and plant-cloning	☐	
Identify scientific developments that have increased understanding of agricultural practices	☐	
Compare traditional farming practices with conservative farming in Australia e.g. crop rotation, free range farming, selective breeding, artificial pollination & insemination etc.,	☐	
CODE: 8LW4 First-Hand Investigation: Crop yield benefits of SOC (Oxford pg45)	☐	
NUMERACY AND SKILLS SET	☐	
Assessment: Oxford online test- Managing ecosystems Students to achieve 100% in Support and Consolidate **OR** Consolidate and Extend	☐	
Assessment: Ecosystems Chapter Test	☐	
Comments and Suggested improvements **Name:** **Signature:** **Date:**		