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**climate
choices**



Biodiversity and the Australian Curriculum

Sustainable Schools Program



ACT
Government

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Biodiversity and the Australian Curriculum

Big understandings – Biodiversity for a sustainable future

1. Biodiversity is the variety of all living things
2. The Earth is always changing
3. The timeframe in which life operates is beyond our personal experience
4. Living things need to change and adapt to survive
5. Earth and all living things are interconnected
6. Australia is a unique and ancient land. ACT has a diverse ecosystem
7. Human impact on the environment always affects biodiversity.

Learning about biodiversity for a sustainable future

	Kindergarten	1	2	3	4	5	6
Science Biological Sciences	Living things have basic needs, including food and water (ACSSU002)	Living things have a variety of external features (ACSSU017) Living things live in different places where their needs are met (ACSSU211)	Living things grow, change and have offspring similar to themselves (ACSSU030)	Living things can be grouped on the basis of observable features and can be distinguished from non-living things (ACSSU044)	Living things have lifecycles (ACSSU072) Living things depend on each other and the environment to survive (ACSSU073)	Living things have structural features and adaptations that help them survive in their environment (ACSSU043)	The growth and survival of living things are affected by physical conditions of their environment (ACSSU094)
Science Physical sciences		Light and sound are produced by a range of sources and can be sensed (ACSSU020)	A push or pull affects how an object moves or changes shape (ACSSU033)	Heat can be produced in many ways and can move from one object to another (ACSSU049)	Forces can be exerted by one object on another through direct contact or from a distance (ACSSU076)	Light from a source forms shadows and can be absorbed, reflected and refracted (ACSSU080)	Electrical energy can be transferred and transformed in electrical circuits and can be generated from a range of sources (ACSSU097)
Science Earth & space sciences	Daily and seasonal changes in our environment affect everyday life (ACSSU004)	Observable changes occur in the sky and landscape (ACSS019)	Earth's resources are used in a variety of ways (ACSSU032)		Earth's surface changes over time as a result of natural processes and human activity (ACSSU075)		Sudden geological changes and extreme weather events can affect the Earth's surface (ACSSU096)

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	Kindergarten	1	2	3	4	5	6
Science Use and influence of science		People use science in their daily lives, including when caring for their environment and living things (ACSHE022) & (ACSHE035)		Science knowledge helps people to understand the effect of their actions (ACSHE051) & (ACSHE062)		Scientific knowledge is used to solve problems and inform personal and community decisions (ACSHE083) & (ACSHE100)	
HASS History		Differences and similarities between students' daily lives and life during their parents' and grandparents' childhoods (ACHASSK030)	How changing technology affected people's lives (at home and in the ways they worked, travelled, communicated and played in the past) (ACHASSK046)			The nature of convict or colonial presence, including the factors that influenced patterns of development, aspects of the daily life of the inhabitants (including Aboriginal Peoples and Torres Strait Islander Peoples) and how the environment changed (ACHASSK107)	

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	Kindergarten	1	2	3	4	5	6
<p>HASS Geography</p>		<p>Activities in the local place and reasons for their location (ACHASSK033)</p>			<p>The importance of environments, including natural vegetation, to animals and people (ACHASSK088)</p> <p>The custodial responsibility Aboriginal and Torres Strait Islander Peoples have for Country/ Place, and how this influences views about sustainability (ACHASSK089)</p> <p>The use and management of natural resources and waste, and different views on how to do this sustainably (ACHASSK090)</p>	<p>The influence of people on the environmental characteristics of places in Europe and North America and the location of their major countries in relation to Australia (ACHASSK112)</p> <p>The influence of people, including Aboriginal and Torres Strait Islander Peoples, on the environmental characteristics of Australian places (ACHASS112)</p> <p>The environmental and human influences on the location and characteristics or a place and the management of spaces within them (ACHASS113)</p> <p>The impact of bushfires or floods on environments and communities and how people can respond (ACHASSK114)</p>	

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	Kindergarten	1	2	3	4	5	6
HASS Economics and Business						<p>The difference between needs and wants and why choices need to be made about how limited resources are used (ACHASSK119)</p> <p>Types of resources (natural, human, capital) and the ways societies use them to satisfy the needs and wants of present and future generations (ACHASSK120)</p> <p>Influences on consumer choices and methods that can be used to help make informed personal consumer and financial choices (ACHASSK 121)</p>	<p>How the concept of opportunity cost involves choices about the alternative use of resources and the need to consider trade-offs (ACHASSK 149)</p> <p>The effect that consumer and financial decisions can have on the individual, the broader community and the environment (ACHASSK150)</p>

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	Kindergarten	1	2	3	4	5	6
Design and Technologies Knowledge and Understanding	Identify how people design and produce familiar products, services and environments and consider sustainability to meet personal and local community needs (ACTCEK001)	Explore how plants and animals are grown for food, clothing and shelter and how food is selected and prepared for healthy eating (ACTCEK003)	Explore the characteristics and properties of materials and components that are used to produce designed solutions (ACTDEK004)	Recognise the role of people in design and technologies occupations and explore factors, including sustainability that impact on the design of products, services and environments to meet community needs (ACTCEK010)	Investigate food and fibre production and food technologies used in modern and traditional societies (ACTCEK012)	Examine how people in design and technologies occupations address competing considerations, including sustainability in the design of products, services, and environments for current and future use (ACTCEK019)	
Design and Technologies Processes and Production Skills	Explore needs or opportunities for designing, and the technologies needed to realise designed solutions (ACTDEP005)	Use personal preferences to evaluate the success of design ideas, processes and solutions including their care for environment (ACTDEP008)		Critique needs or opportunities for designing and explore and test a variety of materials, components, tools and equipment and the techniques needed to produce designed solutions (ACTDEP014)	Evaluate design ideas, processes and solutions based on criteria for success developed with guidance and including care for the environment (ACTDEP017)	Critique needs or opportunities for designing, and investigate materials, components, tools, equipment and processes to achieve intended designed solutions (ACTDEP024)	Negotiate criteria for success that include sustainability to evaluate design ideas, processes and solutions (ACTDEP027)
Digital Technologies Processes and Production Skills						Explain how student solutions and existing information systems are sustainable and meet current and future local community needs (ACTDIP021)	

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	Kindergarten	1	2	3	4	5	6
Health and Physical Education	Participate in play that promotes engagement with outdoor settings and the natural environment (ACPPS007)	Identify and explore natural and built environments in the local community where physical activity can take place (ACPPS023)		Participate in outdoor games and activities to examine how participation promotes a connection between the community, natural land built environments, and health and wellbeing (ACPPS041)		Explore how participation in outdoor activities supports personal and community health and wellbeing and creates connections to natural and built environments (ACPPS059)	
	Explore actions that help make the classroom a healthy, safe and active place (ACPPS022)			Describe strategies to make the classroom and playground healthy, safe and active spaces (ACPPS040)			

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Learning through water, waste, energy, biodiversity and sustainability

	Kindergarten	1	2	3	4	5	6
HASS Civics and Citizenship	Teachers select issues, rules, bylaws and laws related to water, waste, energy, biodiversity and sustainability as students learn about civic participation, democratic process and governance (see relevant content descriptions below).						
				<p>The importance of making decisions democratically (ACHASSK070)</p> <p>Who makes the rules, why rules are important and the consequences of rules not being followed (ACHASSK071)</p> <p>Why people participate within communities and how students can actively participate and contribute (ACHASSK072)</p>	<p>The role of local government and the decisions it makes on behalf of the community (ACHASSK091)</p>	<p>Why regulations and laws are enforced and the personnel involved (ACHASSK117)</p> <p>How people with shared beliefs and values work together to achieve a civic goal (ACHASSK118)</p>	<p>Where ideas for laws come from and how they become law (ACHASSK146)</p> <p>The obligations citizens may consider they have beyond their own national borders as active and informed global citizens (ACHASSK148)</p>
Science Nature and development of science	Teachers select events and phenomena related to water, waste, energy, biodiversity for students to observe and investigate as they are learning about scientific process (see relevant content descriptions below).						
	<p>Science involves observing, asking questions about, and describing changes in, objects and events (ACSHE013)</p>	<p>Science involves observing, asking questions about, and describing changes in, objects and events (ACSHE021) & (ACSHE034)</p>		<p>Science involves making predictions and describing patterns and relationships (ACSHE050) & (ACSHE061)</p>		<p>Science involves testing predictions by gathering data and using evidence to develop explanations of events and phenomena and reflects historical and cultural contributions (ACSHE081) & (ACSHE098)</p>	

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	Kindergarten	1	2	3	4	5	6
English	Teachers select texts, writing stimuli, vocabulary etc. related to water, waste, energy, biodiversity and sustainability as students are learning to read and view, write, speak and listen						
Mathematics	Teachers select problems for students to solve, items to measure, patterns to identify, data to organise, display, compare and analyse related to water, waste, energy, biodiversity and sustainability						
The Arts	Water, waste, energy, biodiversity and sustainability can provide thought-provoking contexts in which students can explore the nature of art making and responding						
Languages	Teachers select texts, writing stimuli, vocabulary etc. related to water, waste, energy, biodiversity and sustainability as students are learning to communicate and interact with others in other cultural contexts						