Mobile Antarctic Classroom Wildlife Presentation Education Program

Mawson's Huts Replica Museum

YEAR LEVEL	PRESENTATION DESCRIPTION	LEARNING OUTCOMES	CURRICULUM LINK	PRE-INCURSION CLASSROOM ACTIVITIES AND RESOURCES	POST-INCURSION CLASSROOM ACTIVITIES AND RESOURCES
K – 2	In this presentation, students will explore the following topics: • Brief overview of Antarctic environment • Penguins – different species and how they live in Antarctica • Different Antarctic animals – what they look like, sound like, eat, and how they move and survive With each topic we have games and activities to help students engage, including active quizzes, hands-on penguin role-play, and a surprise to finish (snow simulation).	• Describe Sir Douglas Mawson's connection with Antarctica • Identify different Antarctic species based on visual and audible information • Map food web interactions between different Antarctic species • Use descriptive writing to aid identification of species • Investigate unfamiliar concepts	**Science Understanding** AC9S1U01 - identify the basic needs of plants and animals, including air, water, food or shelter, and describe how the places they live meet those needs **Science Inquiry** AC9S1I01/AC9S2I01 - pose questions to explore observed simple patterns and relationships and make predictions based on experiences **Science as a Human Endeavour** AC9S3H02/AC9S4H02 - consider how people use scientific explanations to meet a need or solve a problem **English Language** AC9E1LA09 - recognise the vocabulary of learning area topics AC9E2LA09 - experiment with and begin to make conscious choices of vocabulary to suit the topic **English Literacy** AC9E1LY02 - use interaction skills including turn-taking, speaking clearly, using active listening behaviours and responding to the contributions of others, and contributing ideas and questions AC9E2LY02 - use interaction skills when engaging with topics, actively listening to others, receiving instructions and extending own ideas, speaking appropriately, expressing and responding to opinions, making statements, and giving instructions	Antarctic animals – Australian Antarctic Program Lesson 5 • Animal features | Primary Connections Lesson 6 • Animal movement | Primary Connections Lesson 6 • Animal needs—food, water, air | Primary Connections	Lesson 8 • Modelling plant or animal features | Primary Connections Features of Antarctic Animals - COSMOS Education AAD Colouring Sheets **Activity suggestion** • Describe an Antarctic animal without saying its name. In pairs or small groups, can you guess what each others' animals are based on their explanation and pictures of the animals?

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3 – 4	In this presentation, students will explore the following topics: • Brief overview of Antarctic environment • Sir Douglas Mawson's role in Australian Antarctic history • Identifying different penguin species • Familiarisation with other Antarctic animals, including what they look and sound like • Learning the Antarctic food web – who eats who With each topic we have games and activities to help students engage, including active quizzes, hands-on activities, and a surprise to finish (snow simulation).	• Describe Sir Douglas Mawson's connection with Antarctica • Identify different Antarctic species based on visual and audible information • Map food web interactions between different Antarctic species • Use descriptive writing to aid identification of species • Investigate unfamiliar concepts	**Science Understanding** AC9S4U01 - explain the roles and interactions of consumers, producers and decomposers within a habitat and how food chains represent feeding relationships **Science Inquiry** AC9S3I01/ AC9S4I01 - pose questions to explore observed patterns and relationships and make predictions based on observations **Science as a Human Endeavour** AC9S3H02/AC9S4H02 - consider how people use scientific explanations to meet a need or solve a problem **English Language** AC9E3LA10 - extend topic-specific and technical vocabulary and know that words can have different meanings in different contexts AC9E4LA11 - expand vocabulary by exploring a range of synonyms and antonyms, and using words encountered in a range of sources **English Literacy** AC9E3LY02 - use interaction skills to contribute to conversations and discussions to share information and ideas AC9E4LY02 - listen for key points and information to carry out tasks and contribute to discussions, acknowledging another opinion, linking a response to the topic, and sharing and extending ideas and information	Lesson 5 • Food chains | Primary Connections Antarctic animals – Australian Antarctic Program	Lesson 4 • Producers and consumers | Primary Connections Lesson 4 • Producers and consumers | Primary Connections Antarctic Animal Life Cycles - COSMOS Education Features of Antarctic Animals - COSMOS Education Predator and Prey - COSMOS Education Antarctic Origami AAD AAD Who's Eating Who **Activity suggestion** • Each student writes a short story from the perspective of a nominated animal about either finding food or being hunted for food in the context of the food web (students should include details of what they are hunting for/being hunted by, how they move, and what they use to catch their food)

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5 – 6	In this presentation, students will explore the following topics: • Brief overview of Antarctic environment • Sir Douglas Mawson's role in Australian Antarctic history • Identifying different penguin species • Familiarisation with other Antarctic animals, including what they look and sound like • Animal adaptations in Antarctica With each topic we have games and activities to help students engage, including active quizzes, hands-on activities, and a surprise to finish (snow simulation).	• Describe Sir Douglas Mawson's connection with Antarctica • Identify different types of adaptations • Describe the function of certain adaptations found in Antarctic species • Analyse the impact of humans on the Antarctic ecosystem through food web interaction • Present clearly reasoned ideas to peers • Research and communicate findings of current conversation on Antarctic krill fishery	**Science Understanding** AC9S5U01 - examine how particular structural features and behaviours of living things enable their survival in specific habitats AC9S6U01 - investigate the physical conditions of a habitat and analyse how the growth and survival of living things is affected by changing physical conditions **Science Inquiry** AC9S3I01/ AC9S4I01 - pose questions to explore observed patterns and relationships and make predictions based on observations **Science as a Human Endeavour** AC9S5H02 - investigate how scientific knowledge is used by individuals and communities to identify problems, consider responses and make decisions **English Literacy** AC9E5LY05 - use comprehension strategies such as visualising, predicting, connecting, summarising, monitoring and questioning to build literal and inferred meaning to evaluate information and ideas AC9E6LY01 - examine texts including media texts that represent ideas and events, and identify how they reflect the context in which they were created AC9E6LY05 - use comprehension strategies such as visualising, predicting, connecting, summarising, monitoring and questioning to build literal and inferred meaning, and to connect and compare content from a variety of sources	Antarctic animals – Australian Antarctic Program How do native Australian animals survive Australia's harsh environment? | Ask An Expert	Antarctic Animals Video – BTN Antarctic Special Antarctica: Animal Adaptations - COSMOS Education Features of Antarctic Animals - COSMOS Education Krillin It Game AAD **Activity suggestion** • Research different animal adaptations found in Antarctica. Design your own animal that can survive the harsh conditions using your own combination of adaptations.

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7 – 8	In this presentation, students will explore the following topics: • Brief overview of Antarctic environment and Sir Douglas Mawson's role in Australian Antarctic history • Identifying different penguin species • Familiarisation with other Antarctic animals, including what they look and sound like • Animal adaptations in Antarctica • Learning the Antarctic food web – who eats who • The existence and importance of plants in Antarctica With each topic we have games and activities to help students engage, including active quizzes, hands-on activities, and a surprise to finish (snow simulation).	• Describe Sir Douglas Mawson's connection with Antarctica • Correlate identifying features of species with different classification groups • Describe the function of certain adaptations found in Antarctic species • Demonstrate understanding of body systems in a new context • Analyse the impact of humans on the Antarctic ecosystem through food web interaction • Present clearly reasoned ideas to peers • Research and communicate scientific information to a general audience	**Science Understanding** AC9S7U01 - investigate the role of classification in ordering and organising the diversity of life on Earth and use and develop classification tools including dichotomous keys AC9S7U02 - use models, including food webs, to represent matter and energy flow in ecosystems and predict the impact of changing abiotic and biotic factors on populations AC9S8U02 - analyse the relationship between structure and function of cells, tissues and organs in a plant and an animal organ system and explain how these systems enable survival of the individual **Science as a Human Endeavour** AC9S7H03/AC9S8H03 - examine how proposed scientific responses to contemporary issues may impact on society and explore ethical, environmental, social and economic considerations AC9S7H04/ AC9S8H04 - explore the role of science communication in informing individual viewpoints and community policies and regulations **Science Inquiry** AC9S8I06 - analyse methods, conclusions and claims for assumptions, possible sources of error, conflicting evidence and unanswered questions	Antarctic animals – Australian Antarctic Program The Australian Food Web: How It Works and What Affects It - Biology Insights	Antarctic Fisheries - Antarctic and Southern Ocean Coalition UTAS 2023-Food-Webs-in-Action-Year-7.pdf Adjusting the management of the Antarctic krill fishery to meet the challenges of the 21st century - PMC WWF - Krill Fishery Krill fisheries | CCAMLR 1940s whaling in the Antarctic COSMOS Magazine: Good Krill Hunting - COSMOS Education Carbon pumping: in for the krill - COSMOS Education Krillin It Game AAD **Activity suggestion** • Research the history of the whale fishery. Assign students a perspective and host a debate about whether or not to impose restrictions on the fishing of a (hypothetical) currently healthy whale population in the Southern Ocean

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9 – 10	In this presentation, students will explore the following topics: • Brief overview of Antarctic environment and Sir Douglas Mawson's role in Australian Antarctic history • Identifying different penguin species • Familiarisation with other Antarctic animals, including what they look and sound like • Animal adaptations in Antarctica, including evolution • The existence and importance of plants in Antarctica • The process and impact of ocean acidification as it relates to the carbon cycle and the wildlife of Antarctica With each topic we have games and activities to help students engage, including active quizzes, hands-on activities, a chemistry demonstration, and a surprise to finish (snow simulation).	• Describe Sir Douglas Mawson's connection with Antarctica • Describe Antarctica's biodiversity and list factors contributing to it • Explain ocean acidification as a process currently occurring that requires adaptation for survival • Present clearly reasoned ideas to peers • Research and communicate scientific information to a general audience	**Science Understanding** AC9S9U03 - represent the carbon cycle and examine how key processes including combustion, photosynthesis and respiration rely on interactions between Earth's spheres (the geosphere, biosphere, hydrosphere and atmosphere) AC9S10U02 - use the theory of evolution by natural selection to explain past and present diversity and analyse the scientific evidence supporting the theory AC9S10U04 - use models of energy flow between the geosphere, biosphere, hydrosphere and atmosphere to explain patterns of global climate change **Science as a Human Endeavour** AC9S9H03/AC9S10H03 - analyse the key factors that contribute to science knowledge and practices being adopted more broadly by society AC9S9H04/AS9S10H04 - examine how the values and needs of society influence the focus of scientific research **Science Inquiry** AC9S9I05/AC9S10I05 - analyse and connect a variety of data and information to identify and explain patterns, trends, relationships and anomalies	Antarctic animals – Australian Antarctic Program How do native Australian animals survive Australia's harsh environment? | Ask An Expert	Lesson 3 • Carbon dioxide and the carbon cycle | Science Connections Ocean Acidification Antarctic Fisheries - Antarctic and Southern Ocean Coalition Antarctic Fisheries - Antarctic and Southern Ocean Coalition COSMOS Magazine: Good Krill Hunting - COSMOS Education Carbon pumping: in for the krill - COSMOS Education Krillin It Game AAD **Activity suggestion** • Reconstruct the ocean acidification experiment. Write up a science report of the process you observed in this experiment. • Research and compare two similar species, one in Antarctica and one outside of Antarctica, analysing how their differences make them suited to their environments. Present findings in an essay/ PowerPoint presentation