Tommerup's Dairy Farm
Farm School Excursion - Curriculum Links

Australian Curriculum V9 - Years 7 to 10

SCIENCE

Year 7

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

AC9S7U05

use particle theory to describe the arrangement of particles in a substance, including the motion of and attraction between particles, and relate this to the properties of the substance

AC9S7U06

use a particle model to describe differences between pure substances and mixtures and apply understanding of properties of substances to separate mixtures

AC9S7H01

explain how new evidence or different perspectives can lead to changes in scientific knowledge

AC9S7H02

investigate how cultural perspectives and world views influence the development of scientific knowledge

AC9S7H03

examine how proposed scientific responses to contemporary issues may impact on society and explore ethical, environmental, social and economic considerations

AC9S7H04

explore the role of science communication in informing individual viewpoints and community policies and regulations

AC9S7I01

develop investigable questions, reasoned predictions and hypotheses to explore scientific models, identify patterns and test relationships

AC9S7I05

analyse data and information to describe patterns, trends and relationships and identify anomalies

AC9S7I08

write and create texts to communicate ideas, findings and arguments for specific purposes and audiences, including selection of appropriate language and text features, using digital tools as appropriate

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SCIENCE

Year 8

AC9S8U01

recognise cells as the basic units of living things, compare plant and animal cells, and describe the functions of specialised cell structures and organelles

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

AC9S7U05

classify different types of energy as kinetic or potential and investigate energy transfer and transformations in simple systems

AC9S8U06

classify matter as elements, compounds or mixtures and compare different representations of these, including 2-dimensional and 3-dimensional models, symbols for elements and formulas for molecules and compounds

AC9S8U07

compare physical and chemical changes and identify indicators of energy change in chemical reactions

AC9S8H01

explain how new evidence or different perspectives can lead to changes in scientific knowledge

AC9S8H02

investigate how cultural perspectives and world views influence the development of scientific knowledge

AC9S8H03

examine how proposed scientific responses to contemporary issues may impact on society and explore ethical, environmental, social and economic considerations

AC9S8H04

explore the role of science communication in informing individual viewpoints and community policies and regulations

AC9S8I01

develop investigable questions, reasoned predictions and hypotheses to explore scientific models, identify patterns and test relationships

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Australian Curriculum V9 - Years 7 to 10

SCIENCE

Year 8 cont'd AC9S8I02

plan and conduct reproducible investigations to answer questions and test hypotheses, including identifying variables and assumptions and, as appropriate, recognising and managing risks, considering ethical issues and recognising key considerations regarding heritage sites and artefacts on Country/Place

AC9S8I03

select and use equipment to generate and record data with precision, using digital tools as appropriate

AC9S8I04

select and construct appropriate representations, including tables, graphs, models and mathematical relationships, to organise and process data and information

AC9S8I05

analyse data and information to describe patterns, trends and relationships and identify anomalies

AC9S8I06

analyse methods, conclusions and claims for assumptions, possible sources of error, conflicting evidence and unanswered questions

AC9S8I07

construct evidence-based arguments to support conclusions or evaluate claims and consider any ethical issues and cultural protocols associated with using or citing secondary data or information

AC9S8I08

write and create texts to communicate ideas, findings and arguments for specific purposes and audiences, including selection of appropriate language and text features, using digital tools as appropriate

Year 9

AC9S9U02

describe the form and function of reproductive cells and organs in animals and plants, and analyse how the processes of sexual and asexual reproduction enable survival of the species

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)

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SCIENCE

Year 9 cont'd

AC9S9H03
analyse the key factors that contribute to science knowledge and practices being adopted more broadly by society

AC9S9H04
examine how the values and needs of society influence the focus of scientific research

AC9S9I01
develop investigable questions, reasoned predictions and hypotheses to test relationships and develop explanatory models

AC9S9I02
plan and conduct valid, reproducible investigations to answer questions and test hypotheses, including identifying and controlling for possible sources of error and, as appropriate, developing and following risk assessments, considering ethical issues, and addressing key considerations regarding heritage sites and artefacts on Country/Place

AC9S9I08
write and create texts to communicate ideas, findings and arguments effectively for identified purposes and audiences, including selection of appropriate content, language and text features, using digital tools as appropriate

Year 10

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

AC9S10U07
identify patterns in synthesis, decomposition and displacement reactions and investigate the factors that affect reaction rates

AC9S10H01
explain how scientific knowledge is validated and refined, including the role of publication and peer review

AC9S10H03
analyse the key factors that contribute to science knowledge and practices being adopted more broadly by society

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Australian Curriculum V9 - Years 7 to 10

SCIENCE

Year 10 cont'd AC9S10H04

examine how the values and needs of society influence the focus of scientific research

AC9S10I01

develop investigable questions, reasoned predictions and hypotheses to test relationships and develop explanatory models

AC9S10I02

plan and conduct valid, reproducible investigations to answer questions and test hypotheses, including identifying and controlling for possible sources of error and, as appropriate, developing and following risk assessments, considering ethical issues, and addressing key considerations regarding heritage sites and artefacts on Country/Place

AC9S10I08

write and create texts to communicate ideas, findings and arguments effectively for identified purposes and audiences, including selection of appropriate content, language and text features, using digital tools as appropriate