



ROYAL QUEENSLAND SHOW

CURRICULUM ALIGNMENT & CLASSROOM RESOURCES

GIANT PUMPKIN COMPETITION



Foundation - Senior Secondary

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COMPETITION OVERVIEW

Giant Pumpkin Competition

The competition features two classes, testing the growing skills of farmers, students and gardeners to see who can harvest the heaviest giant pumpkin.

Entering a giant pumpkin growing competition offers a unique and hands-on learning experience that complements various aspects of the curriculum.

From a scientific perspective, students can apply lessons in biology by understanding plant life cycles, photosynthesis, and the impact of environmental factors on growth. Mathematics comes into play as they measure and track the growth of their pumpkins, calculating growth rates and analysing data. Additionally, the competition encourages teamwork and project management, teaching valuable collaboration and problem-solving skills. The agricultural aspect introduces students to sustainability and environmental stewardship.

The Giant Pumpkin bridges classroom knowledge with real-world application, making learning engaging, impactful and fun.



IMPORTANT CONTACTS

Competition Enquiries

entries@rna.org.au

Education Content Enquiries

education@ekka.com.au

Ekka School & Group Bookings Enquiries

groupbookings@ekka.com.au





CURRICULUM ALIGNMENT

FOUNDATION

Achievement Standard

By the end of Foundation, students group plants and animals based on external features. Students pose questions and make predictions based on their experiences. They engage in investigations and make observations safely. With guidance, they represent observations and identify patterns. With guidance, they compare their observations with their predictions. They share questions, observations and ideas about their experiences with others.

Science Understanding

Observe external features of plants and animals and describe ways they can be grouped based on these features ([AC9SFU01](#))

Science Inquiry

Pose questions and make predictions based on experiences ([AC9SFI01](#))

Engage in investigations safely and make observations using their senses ([AC9SFI02](#))

Compare observations with predictions with guidance ([AC9SFI04](#))

Share questions, predictions, observations and ideas with others ([AC9SFI05](#))



*Creative and
critical thinking*



Literacy



Numeracy





CURRICULUM ALIGNMENT

YEAR 1

Achievement Standard

By the end of Year 1, students pose questions to explore observations and make predictions based on experiences. They follow safe procedures to make and record observations. With guidance, they compare observations with predictions and identify further questions. They use everyday vocabulary to communicate observations, findings and ideas.

Science Understanding

Identify the basic needs of plants and animals, including air, water, food or shelter, and describe how the places they live meet those needs ([AC9S1U01](#))

Describe daily and seasonal changes in the environment and explore how these changes affect everyday life ([AC9S1U02](#))

Science Inquiry

Pose questions to explore observed simple patterns and relationships and make predictions based on experiences ([AC9S1I01](#))

Suggest and follow safe procedures to investigate questions and test predictions ([AC9S1I02](#))

Make and record observations, including informal measurements, using digital tools as appropriate ([AC9S1I03](#))

Compare observations with predictions and others' observations, consider if investigations are fair and identify further questions with guidance ([AC9S1I05](#))

Write and create texts to communicate observations, findings and ideas, using everyday and scientific vocabulary ([AC9S1I06](#))

Design and Technologies: Food and Fibre Production

Explore how plants and animals are grown for food, clothing and shelter ([AC9TDE2K03](#))

Explore how food can be selected and prepared for healthy eating ([AC9TDE2K04](#))



Creative and critical thinking



Literacy



Numeracy



Personal and social capability



Digital literacy



Sustainability





CURRICULUM ALIGNMENT

YEAR 2

Achievement Standard

By the end of Year 2, students describe how people use science in their daily lives and how people use patterns to make scientific predictions. Students pose questions to explore observed patterns or relationships and make predictions based on experiences. They suggest steps to be followed in an investigation and follow safe procedures to make and record observations. With guidance, they compare their observations with those of others, identify whether their investigation was fair and identify further questions. They use everyday and scientific vocabulary to communicate observations, findings and ideas.

Science Inquiry

Pose questions to explore observed simple patterns and relationships and make predictions based on experiences ([AC9S2I01](#))

Suggest and follow safe procedures to investigate questions and test predictions ([AC9S2I02](#))

Make and record observations, including informal measurements, using digital tools as appropriate ([AC9S2I03](#))

Compare observations with predictions and others' observations, consider if investigations are fair and identify further questions with guidance ([AC9S2I05](#))

Write and create texts to communicate observations, findings and ideas, using everyday and scientific vocabulary ([AC9S2I06](#))

Design and Technologies: Food and Fibre Production

Explore how plants and animals are grown for food, clothing and shelter ([AC9TDE2K03](#))

Explore how food can be selected and prepared for healthy eating ([AC9TDE2K04](#))



Creative and critical thinking



Literacy



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Personal and social capability



Digital literacy



Sustainability





CURRICULUM ALIGNMENT

YEAR 3

Achievement Standard

By the end of Year 3, students classify and compare living and non-living things and different life cycles. Students pose questions to explore patterns and relationships and make predictions based on experiences. They use scaffolds to plan safe investigations and fair tests. They use familiar classroom instruments to make measurements. They compare their findings with those of others, explain how they kept their investigation fair, identify further questions and draw conclusions. They communicate ideas and findings for an identified purpose, including using scientific vocabulary when appropriate.

Science Understanding

Compare characteristics of living and non-living things and examine the differences between the life cycles of plants and animals ([AC9S3U01](#))

Science Inquiry

Pose questions to explore observed patterns and relationships and make predictions based on observations ([AC9S3I01](#))

Use provided scaffolds to plan and conduct investigations to answer questions or test predictions, including identifying the elements of fair tests, and considering the safe use of materials and equipment ([AC9S3I02](#))

Follow procedures to make and record observations, including making formal measurements using familiar scales instruments and using digital tools as appropriate ([AC9S3I03](#))

Compare findings with those of others, consider if investigations were fair, identify questions for further investigation and draw conclusions ([AC9S3I05](#))

Write and create texts to communicate findings and ideas for identified purposes and audiences, using scientific vocabulary and digital tools as appropriate ([AC9S3I06](#))

Design & Technologies: Food and Fibre Production

Describe the ways of producing food and fibre ([AC9TDE4K03](#)).



Creative and critical thinking



Literacy



Numeracy



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Sustainability





CURRICULUM ALIGNMENT

YEAR 4

Achievement Standard

By the end of Year 4, students pose questions to identify patterns and relationships and make predictions based on observations. They plan investigations using planning scaffolds, identify key elements of fair tests and describe how they conduct investigations safely. They use simple procedures to make accurate formal measurements. They compare their findings with those of others, assess the fairness of their investigation, identify further questions for investigation and draw conclusions. They communicate ideas and findings for an identified audience and purpose, including using scientific vocabulary when appropriate.

Science Understanding

Explain the roles and interactions of consumers, producers and decomposers within a habitat and how food chains represent feeding relationships ([AC9S4U01](#))

Science Inquiry

Pose questions to explore observed patterns and relationships and make predictions based on observations ([AC9S4I01](#))

Use provided scaffolds to plan and conduct investigations to answer questions or test predictions, including identifying the elements of fair tests, and considering the safe use of materials and equipment ([AC9S4I02](#))

Follow procedures to make and record observations, including making formal measurements using familiar scales instruments and using digital tools as appropriate ([AC9S4I03](#))

Compare findings with those of others, consider if investigations were fair, identify questions for further investigation and draw conclusions ([AC9S4I05](#))

Write and create texts to communicate findings and ideas for identified purposes and audiences, using scientific vocabulary and digital tools as appropriate ([AC9S4I06](#))

Design & Technologies: Food and Fibre Production

Describe the ways of producing food and fibre ([AC9TDE4K03](#)).



Creative and critical thinking



Literacy



Numeracy



Personal and social capability



Digital literacy



Sustainability





CURRICULUM ALIGNMENT

YEAR 5

Achievement Standard

By the end of Year 5, students explain how the form and behaviour of living things enables survival. Students plan safe investigations to identify patterns and relationships and make reasoned predictions. They identify risks associated with investigations and key intercultural considerations when planning field work. They identify variables to be changed and measured. They use equipment to generate data with appropriate precision. They compare their methods and findings to those of others, identify possible sources of error in their investigation, pose questions for further investigation and draw reasoned conclusions. They use language features that reflect their purpose and audience when communicating their ideas and findings.

Science Understanding

Examine how particular structural features and behaviours of living things enable their survival in specific habitats ([AC9S5U01](#)).

Science Inquiry

Pose investigable questions to identify patterns and test relationships and make reasoned predictions ([AC9S5I01](#)).

Plan and conduct repeatable investigations to answer questions, including, as appropriate, deciding the variables to be changed, measured and controlled in fair tests; describing potential risks; planning for the safe use of equipment and materials; and identifying required permissions to conduct investigations on Country/Place ([AC9S5I02](#)).

Use equipment to observe, measure and record data with reasonable precision, using digital tools as appropriate ([AC9S5I03](#)).

Compare methods and findings with those of others, recognise possible sources of error, pose questions for further investigation and select evidence to draw reasoned conclusions ([AC9S5I05](#)).

Write and create texts to communicate ideas and findings for specific purposes and audiences, including selection of language features, using digital tools as appropriate ([AC9S5I06](#)).

Design & Technologies: Food and Fibre Production

Explain how and why food and fibre are produced in managed environments ([AC9TDE6K03](#)).



Creative and critical thinking



Literacy



Numeracy



Personal and social capability



Digital literacy



Sustainability



Aboriginal and Torres Strait Islander histories and cultures





CURRICULUM ALIGNMENT

YEAR 6

Achievement Standard

By the end of Year 6, students explain how changes in physical conditions affect living things. Students plan safe, repeatable investigations to identify patterns and test relationships and make reasoned predictions. They describe risks associated with investigations and key intercultural considerations when planning field work. They identify variables to be changed, measured and controlled. They use equipment to generate and record data with appropriate precision. They identify possible sources of error in their own and others' methods and findings, pose questions for further investigation and select evidence to support reasoned conclusions. They select and use language features that reflect their purpose and audience when communicating their ideas and findings.

Science Understanding

Investigate the physical conditions of a habitat and analyse how the growth and survival of living things is affected by changing physical conditions ([AC9S6U01](#)).

Science Inquiry

Pose investigable questions to identify patterns and test relationships and make reasoned predictions ([AC9S6I01](#)).

Plan and conduct repeatable investigations to answer questions, including, as appropriate, deciding the variables to be changed, measured and controlled in fair tests; describing potential risks; planning for the safe use of equipment and materials; and identifying required permissions to conduct investigations on Country/Place ([AC9S6I02](#)).

Use equipment to observe, measure and record data with reasonable precision, using digital tools as appropriate ([AC9S6I03](#)).

Compare methods and findings with those of others, recognise possible sources of error, pose questions for further investigation and select evidence to draw reasoned conclusions ([AC9S6I05](#)).

Write and create texts to communicate ideas and findings for specific purposes and audiences, including selection of language features, using digital tools as appropriate ([AC9S6I06](#)).

Design & Technologies: Food and Fibre Production

Explain how and why food and fibre are produced in managed environments ([AC9TDE6K03](#)).



Creative and critical thinking



Literacy



Numeracy



Personal and social capability



Digital literacy



Sustainability



Aboriginal and Torres Strait Islander histories and cultures



CURRICULUM ALIGNMENT

YEAR 7

Achievement Standard

By the end of Year 7, students plan and conduct safe, reproducible investigations to test relationships and aspects of scientific models. They identify potential ethical issues and intercultural considerations required for field locations or use of secondary data. They use equipment to generate and record data with precision. They process data and information and analyse it to describe patterns, trends and relationships. They identify possible sources of error in methods and identify unanswered questions in conclusions and claims. They identify evidence to support their conclusions and construct arguments to support or dispute claims. They select and use language and text features appropriately for their purpose and audience when communicating their ideas and findings.

Science Inquiry

Develop investigable questions, reasoned predictions and hypotheses to explore scientific models, identify patterns and test relationships ([AC9S7I01](#))

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 ([AC9S7I02](#))

Select and use equipment to generate and record data with precision, using digital tools as appropriate ([AC9S7I03](#))

Analyse data and information to describe patterns, trends and relationships and identify anomalies ([AC9S7I05](#))

Analyse methods, conclusions and claims for assumptions, possible sources of error, conflicting evidence and unanswered questions ([AC9S7I06](#))

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 ([AC9S7I08](#))

Design & Technologies: Food and Fibre Production

Analyse how food and fibre are produced in managed environments and how these can become sustainable ([AC9TDE8K04](#))



Creative and critical thinking



Literacy



Numeracy



Personal and social capability



Digital literacy



Sustainability



Aboriginal and Torres Strait Islander histories and cultures





CURRICULUM ALIGNMENT

YEAR 8

Achievement Standard

By the end of Year 8, students explain the role of specialised cell structures and organelles in cellular function and analyse the relationship between structure and function at organ and body system levels. Students plan and conduct safe, reproducible investigations to test relationships and explore models. They describe potential ethical issues and intercultural considerations needed for specific field locations or use of secondary data. They select and use equipment to generate and record data with precision. They analyse data and information to describe patterns, trends and relationships and identify anomalies. They construct evidence-based arguments to support conclusions and evaluate claims.

Science Understanding

Recognise cells as the basic units of living things, compare plant and animal cells, and describe the functions of specialised cell structures and organelles ([AC9S8U01](#))
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 ([AC9S8U2](#))

Science Inquiry

Develop investigable questions, reasoned predictions and hypotheses to explore scientific models, identify patterns and test relationships ([AC9S8I01](#))
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 ([AC9S8I02](#))
Select and use equipment to generate and record data with precision, using digital tools as appropriate ([AC9S8I03](#))
Analyse data and information to describe patterns, trends and relationships and identify anomalies ([AC9S8I05](#))
Analyse methods, conclusions and claims for assumptions, possible sources of error, conflicting evidence and unanswered questions ([AC9S8I06](#))
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 ([AC9S8I08](#))

Design & Technologies: Food and Fibre Production

Analyse how food and fibre are produced in managed environments and how these can become sustainable ([AC9TDE8K04](#))



Creative and critical thinking



Literacy



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Sustainability



Aboriginal and Torres Strait Islander histories and cultures





CURRICULUM ALIGNMENT

YEAR 9

Achievement Standard

By the end of Year 9, students describe how the processes of sexual and asexual reproduction enable survival of the species. Students plan and conduct safe, reproducible investigations to test or identify relationships and models. They describe how they have addressed any ethical and intercultural considerations when generating or using primary and secondary data. They select and use equipment to generate and record replicable data with precision. They analyse and connect data and information to identify and explain patterns, trends, relationships and anomalies. They analyse the impact of assumptions and sources of error in methods and evaluate the validity of conclusions and claims. They construct logical arguments based on evidence to support conclusions and evaluate claims. They select and use content, language and text features effectively to achieve their purpose when communicating their ideas, findings and arguments to specific audiences.

Science Understanding

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 ([AC9S9U01](#))

Science Inquiry

Develop investigable questions, reasoned predictions and hypotheses to test relationships and develop explanatory models ([AC9S9I01](#))

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 ([AC9S9I02](#))

Select and use equipment to generate and record data with precision to obtain useful sample sizes and replicable data, using digital tools as appropriate ([AC9S9I03](#))

Analyse and connect a variety of data and information to identify and explain patterns, trends, relationships and anomalies ([AC9S9I05](#))

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 ([AC9S9I08](#))

Design & Technologies: Food and Fibre Production

Analyse and make judgements on the ethical, secure and sustainable production and marketing of food and fibre enterprises ([AC9TDE10K04](#)).



Creative and critical thinking



Literacy



Numeracy



Personal and social capability



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Sustainability



Aboriginal and Torres Strait Islander histories and cultures



CURRICULUM ALIGNMENT

YEAR 10

Achievement Standard

By the end of Year 10, students explain the processes that underpin heredity and genetic diversity and describe the evidence by supporting the theory of evolution by natural selection. Students plan and conduct safe, valid and reproducible investigations to test relationships or develop explanatory models. They explain how they have addressed any ethical and intercultural considerations when generating or using primary and secondary data. They select equipment and use it efficiently to generate and record appropriate sample sizes and replicable data with precision. They analyse and connect a variety of data and information to identify and explain patterns, trends, relationships and anomalies. They evaluate the validity of and reproducibility of methods, and the validity of conclusions and claims. They construct logical arguments based on analysis of a variety of evidence to support conclusions and evaluate claims. They select and use content, language and text features effectively to achieve their purpose when communicating their ideas, findings and arguments to diverse audiences.

Science Understanding

Use the theory of evolution by natural selection to explain past and present diversity and analyse the scientific evidence supporting the theory ([AC9S10U02](#))

Science Inquiry

Develop investigable questions, reasoned predictions and hypotheses to test relationships and develop explanatory models ([AC9S10I01](#))

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 ([AC9S10I02](#))

Select and use equipment to generate and record data with precision to obtain useful sample sizes and replicable data, using digital tools as appropriate ([AC9S10I03](#))

Analyse and connect a variety of data and information to identify and explain patterns, trends, relationships and anomalies ([AC9S10I05](#))

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 ([AC9S10I08](#))

Design & Technologies: Food and Fibre Production

Analyse and make judgements on the ethical, secure and sustainable production and marketing of food and fibre enterprises ([AC9TDE10K04](#)).



Creative and critical thinking



Literacy



Numeracy



Personal and social capability



Digital literacy



Sustainability



Aboriginal and Torres Strait Islander histories and cultures





CURRICULUM ALIGNMENT

SENIOR SECONDARY - EARTH & ENVIRONMENTAL SCIENCE

Unit 3: Living on Earth – extracting, using and managing Earth resources

Earth resources are required to sustain life and provide infrastructure for living (for example, food, shelter, medicines, transport, and communication), driving ongoing demand for biotic, mineral and energy resources. In this unit, students explore renewable and non-renewable resources and analyse the effects that resource extraction, use and consumption and associated waste removal have on Earth systems and human communities.

Food security and protecting agricultural biodiversity

Food security is increasingly viewed as one of the most significant global issues, and has implications for health, sustainable economic development, environmental protection and trade. Greater agricultural productivity is seen as essential to achieving food security, but this can often lead to a focus on farming high yield species, which may itself lead to a decrease in the genetic diversity of global food species. Decreased genetic diversity increases vulnerability of species to disease and changes in environmental conditions; a focus on high yield species can require additional inputs, such as fertiliser and water, in order to be successful in different environments ([ACSES070](#)). Global actions to maintain biodiversity of agricultural species include the International Treaty on Plant Genetic Resources for Food and Agriculture, which provides a framework for national, regional and international efforts to conserve genetic resources and share the benefits of such conservation equally ([ACSES069](#)).

Science Inquiry Skills

Identify, research and construct questions for investigation; propose hypotheses; and predict possible outcomes ([ACSES057](#))

Design investigations including the procedure/s to be followed, the information required and the type and amount of primary and/or secondary data to be collected; conduct risk assessments; and consider research ethics ([ACSES058](#))

Represent data in meaningful and useful ways; organise and analyse data to identify trends, patterns and relationships; discuss the ways in which measurement error and instrumental accuracy and the nature of the procedure and sample size may influence uncertainty and limitations in data; and select, synthesise and use evidence to make and justify conclusions ([ACSES060](#))

Interpret a range of scientific and media texts and evaluate processes, claims and conclusions by considering the quality of available evidence, including interpreting confidence intervals in secondary data; use reasoning to construct scientific arguments ([ACSES061](#))

Communicate to specific audiences and for specific purposes using appropriate language, genres and modes, including compilations of field data and research reports ([ACSES063](#))





CLASSROOM RESOURCES

FOUNDATION - YEAR 2

Digital Technologies Hub: Planting Fruit and Vegetables

In this sequence of lessons students grow a plant from seed, capturing each step and decision as an algorithmic process and recording data for future learning.

www.digitaltechnologieshub.edu.au/teach-and-assess/classroom-resources/lesson-ideas/planting-fruit-and-vegetables/



Pick of the Crop: School and Community Fruit and Veggie Education

Connect your students and school community with local growers, producers and farmers to provide a great opportunity for students to experience all stages of 'paddock to plate'. Activities and ideas are provided for farm excursions, day events, and classroom activities, as well as supporting resources for school tuckshops.

hw.qld.gov.au/pick-of-the-crop/school-resources/



Junior Landcare: Sow a Seed, Grow a Feed

Engage young learners' senses as they grow food from a seed. They can learn about caring for a living thing, experience the joy of watching something grow and harvesting healthy food. The activity provides opportunities for development of science, sustainability and maths concepts.

juniorlandcare.org.au/learning_activity/sow-a-seed-grow-a-feed/



CSIRO with Hort Innovation: Taste and Learn

An Australian program for primary schools to support student learning and foster the enjoyment of vegetables to positively impact children's health and wellbeing with a focus on sensory education, not nutrition education. Teacher resources provide a large emphasis on experiential learning and vegetable tastings in structured activities.

research.csiro.au/taste-and-learn/



Hort Innovation: Veggycation

Explore the nutrition and health benefits of vegetables including the different varieties of pumpkins and how they are grown in Australia. Veggycation provides further information on scientific names, health benefits, preparation and storage, and cooking tips. A great resource for students to research the uses and benefits of all different vegetables.

www.veggycation.com.au/vegetables/pumpkin/

veggycation





CLASSROOM RESOURCES

YEARS 3 - 4

Phenomenom! by Hort Innovation and Alice Zaslavsky: Ghost Pumpkins

In this sequence of lessons students grow a plant from seed, capturing each step and decision as an algorithmic process and recording data for future learning.

www.digitaltechnologieshub.edu.au/teach-and-assess/classroom-resources/lesson-ideas/planting-fruit-and-vegetables/



Pick of the Crop: School and Community Fruit and Veggie Education

Connect your students and school community with local growers, producers and farmers to provide a great opportunity for students to experience all stages of 'paddock to plate'. Activities and ideas are provided for farm excursions, day events, and classroom activities, as well as supporting resources for school tuckshops.

hw.qld.gov.au/pick-of-the-crop/school-resources/



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research.csiro.au/taste-and-learn/



ABC Education: Kids in the Garden

The Kids in the Garden episode series identifies the life cycle of plants from seed to plant and flower to fruit with each episode providing accompanying questions for classes to reflect on after watching. The following episodes are the most relevant for Years 3 and 4 and highlight information about pumpkin growing.



Episode 2 - www.abc.net.au/education/kids-in-the-garden-ep-2-how-seeds-become-plants/13633088

Episode 5 - www.abc.net.au/education/kids-in-the-garden-ep-5-how-plants-work/13633124

Episode 6 - www.abc.net.au/education/kids-in-the-garden-ep-6-why-plants-make-fruit/13605862

Episode 9 - www.abc.net.au/education/kids-in-the-garden-ep-9-vegetable-gardens/13633262





CLASSROOM RESOURCES

YEARS 5 - 6

Australian National Botanic Gardens: Pollination

The Australian National Botanic Gardens has developed a Plant Science Learning Hub that aims to inspire and engage students in plant science and learn in a way that is fun and rewarding. The resource on Pollination is the perfect accompaniment to growing Giant Pumpkins where hand pollination is undertaken.

learn.anbg.gov.au/pollination



Pick of the Crop: School and Community Fruit and Veggie Education

Connect your students and school community with local growers, producers and farmers to provide a great opportunity for students to experience all stages of 'paddock to plate'. Activities and ideas are provided for farm excursions, day events, and classroom activities, as well as supporting resources for school tuckshops.

hw.qld.gov.au/pick-of-the-crop/school-resources/



OzHarvest: FEAST

FEAST (Food Education and Sustainability Training) is a curriculum-aligned education program for primary and secondary schools, which explores the issue of food waste and its environmental impact, healthy eating and easy classroom cooking. Like any good FEAST, it's designed to be fun, engaging and filled with good food run over 7 to 10 weeks and as a STEM project-based learning program. FEAST including online learning resources including lesson plans, student worksheets, videos, recipe books, and cooking guide.

www.ozharvest.org/education/feast/



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Episode 2 - www.abc.net.au/education/kids-in-the-garden-ep-2-how-seeds-become-plants/13633088

Episode 5 - www.abc.net.au/education/kids-in-the-garden-ep-5-how-plants-work/13633124

Episode 6 - www.abc.net.au/education/kids-in-the-garden-ep-6-why-plants-make-fruit/13605862

Episode 9 - www.abc.net.au/education/kids-in-the-garden-ep-9-vegetable-gardens/13633262





CLASSROOM RESOURCES

YEARS 7 - 8

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www.ozharvest.org/education/feast/



PIEFA: Producing Pollinators for Improved Orchard Yields

Where would we be without bees? This resource for Years 7 & 8 will introduce students to the importance of pollinators for improving orchard yields, human management of bees for orchard pollination, and the impacts of farm management on the sustainability of farm enterprise. This resource consists of three activities to build on students' knowledge of pollinators and their impact on food production.

ezrwbvk28gx.exactdn.com/wp-content/uploads/2023/07/Producing-Pollinators-for-Improved-Orchard-Yields.pdf



PIEFA, Soil Science Australia & Soils for Life: Healthy Living Soils

The key to growing a giant pumpkin is pruning, fertilising, and getting soil tests, share Dale Oliver, the current Australian record holder of an [867kg giant pumpkin](#) at the 2021 Giant Pumpkin and Watermelon Festival in Kyogle, NSW.

PIEFA, Soil Science Australia, and Soils for Life, with funding from the Australian Government's National Landcare Program, developed a suite of soil-based, curriculum linked resources for teachers and students. Students learn about our valuable and productive Australian soils with hands-on practical tasks, collaborative activities, research opportunities, video content, and case studies. There is a full unit on undertaking soil testing and understanding the results.

healthylivingsoils.com.au





CLASSROOM RESOURCES

YEARS 9 - 10

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www.ozharvest.org/education/feast



PIEFA, Soil Science Australia & Soils for Life: Healthy Living Soils

The key to growing a giant pumpkin is pruning, fertilising, and getting soil tests, share Dale Oliver, the current Australian record holder of an [867kg giant pumpkin](#) at the 2021 Giant Pumpkin and Watermelon Festival in Kyogle, NSW.

PIEFA, Soil Science Australia, and Soils for Life, with funding from the Australian Government's National Landcare Program, developed a suite of soil-based, curriculum linked resources for teachers and students. Students learn about our valuable and productive Australian soils with hands-on practical tasks, collaborative activities, research opportunities, video content, and case studies. There is a full unit on undertaking soil testing and understanding the results.

healthylivingsoils.com.au



Soil Science Australia: Soil Science Careers

In this activity, designed for students in Years 7 - 10 Science, students explore several soil science careers. The resource provides a variety of videos, and articles on environmental management careers who use soil science in their work. Soil science offers meaningful and rewarding career options that often intersect with other sciences such as ecology, hydrology, and forensics.

www.soilscienceaustralia.org.au/wp-content/uploads/2021/09/Soil-science-careers-teacher-guide-2020_updated.pdf



Soil Science Australia: Soil in the Urban Environment

This scenario-based resource is targeted for Year 10 Science with a chemistry focus. Students explore the chemical reactions of pH, salinity, sodicity and corrosion in the soil in a real-world scenario.

www.soilscienceaustralia.org.au/wp-content/uploads/2020/12/SoilsInSchools-TeacherGuide-Soil-in-the-Urban-Environment_FINAL.pdf



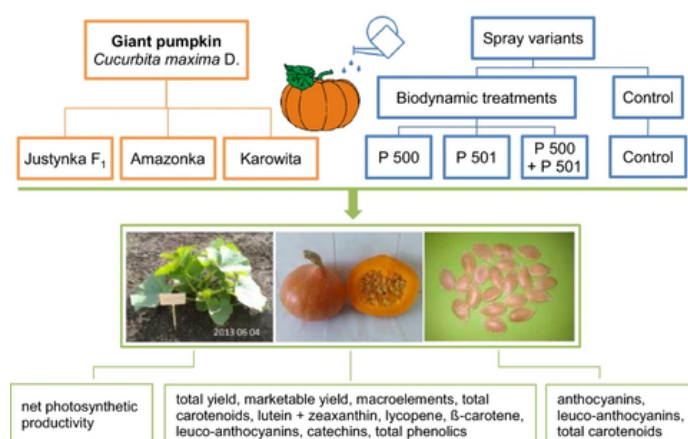
CLASSROOM RESOURCES

SENIOR SECONDARY

Chemical and Biological Technologies in Agriculture: The effect of biodynamic preparations on growth and fruit quality of giant pumpkin

Food quality of agricultural crops depends on environmental conditions, production system and cultivation method. A plant-based nutrition with food rich in vitamins, minerals and secondary plant compounds with antioxidative properties promotes human health. This investigation was inspired by an increasing global issue on how to improve product quality while using alternative preparations.

<https://doi.org/10.1186/s40538-021-00258-z>



Horticultural Science News: Giant Pumpkins: Genetic and Cultural Breakthroughs

The increasing record size of pumpkin has become an intriguing phenomenon over the past 150 years. The recent listing of winners in the Guinness World Records has provided incentive for hundreds of passionate growers worldwide to compete for financial rewards in prizes, returns on the sale of seed, and fame in the world of horticulture.

<https://www.actahort.org/chronica/pdf/ch4803.pdf#page=16>

Plant, Cell & Environment: The making of giant pumpkins: how selective breeding changed the phloem of Cucurbita maxima from source to sink

Despite the success of breeding programmes focused on increasing fruit size, relatively little is known about the anatomical and physiological changes required to increase reproductive allocation. To address this gap in knowledge, we compared fruit/ovary anatomy, vascular structure and phloem transport of two varieties of giant pumpkins, and their smaller fruited progenitor under controlled environmental conditions.

<https://doi.org/10.1111/pce.12502>





CLASSROOM RESOURCES

SENIOR SECONDARY (CONT.)

International Journal of Vegetable Science: Influence of Tillage, Cover Crop, and Preemergence Herbicides on Weed Control and Pumpkin Yield

The study shows that cover crops plus no-tillage can suppress weeds effectively and support pumpkin production, often better than conventional tillage alone. For giant pumpkin growers whose goal is maximizing fruit weight, the most important lesson is that early-season weed control is critical because weed pressure is strongly linked to reductions in fruit size and overall yield.

<https://doi.org/10.1080/19315260801934670>

International Journal of Non-Linear Mechanics: The growth of giant pumpkins: How extreme weight influences shape

This study investigated how giant pumpkins develop their characteristic flattened shape as they increase in size. Using time-lapse photography, farmer-collected measurements, and laboratory testing, researchers tracked pumpkin growth and examined how the fruit responds to the enormous forces created by its own weight.

<https://doi.org/10.1016/j.jnonlinmec.2010.12.013>



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