Ekka
EDUCATION

CURRICULUM ALIGNMENT & CLASSROOM RESOURCES

RAISING HY-LINE HENS COMPETITION

GRADE 7 - GRADE 10

Ekka EDUCATION

COMPETITION OVERVIEW

This competition allows students to gain insight into the cycle of life by raising their own laying hens. The Ekka has partnered with Specialised Breeders Australia to provide schools with six eight-week old Hy-Line Brown hens. The competing schools are required to raise the hens to 26 weeks. The aim is to have the hens laying and ready to compete at the Ekka.

Schools submit their three best hens to take to the Ekka, with the competition consisting of three main elements: Birds, Eggs & Project.

The competition is judged by experts from the commercial poultry industry and the birds are judged to a commercial standard. Each component is assessed by industry experts.

IMPORTANT CONTACTS

Competition Enquiries

entries@rna.org.au

Education Content Enquiries

education@ekka.com.au

Ekka School & Group Bookings Enquiries

groupbookings@ekka.com.au

VERSION 8.4

Digital Technologies: Processes and Production Skills

Define and decompose real-world problems taking into account functional requirements and economic, environmental, social, technical and usability constraints (ACTDIP027)

Evaluate how student solutions and existing information systems meet needs, are innovative, and take account of future risks and sustainability (ACTDIP031)

Design and Technologies: Knowledge and Understanding

Analyse how characteristics and properties of food determine preparation techniques and presentation when designing solutions for healthy eating (ACTDEK033)

Design and Technologies: Processes and Production Skills

Select and justify choices of materials, components, tools, equipment and techniques to effectively and safely make designed solutions (ACTDEP037)

Creative & Critical Thinking

Literacy

Personal & Social Capability

VERSION 9

Digital Technologies Processes and Production Skills: Investigating and Defining

Define and decompose real world problems with design criteria and by creating user stories (AC9TDI8P04)

Digital Technologies Processes and Production Skills: Evaluating

Evaluate existing and student solutions against the design criteria, user stories and possible future impact (AC9TDI8P10)

Design and Technologies Knowledge and Understanding: Food Specialisations

Analyse how properties of foods determine preparation and presentation techniques when designing solutions for healthy eating (AC9TDE8K05)

Design and Technologies Processes and Production Skills: Producing and Implementing

Select, justify and use suitable materials, components, tools, equipment, skills and processes to safely make designed solutions (AC9TDE8P03)

CLASSROOM RESOURCES

Australian Eggs – Nutrition is No Yolk

In this module students will explore the nutritional value of eggs in a range of preparation styles, and how these styles impact on a specific demographic's nutritional needs (such as children under five, people aged over 60, teachers, etc). Students will explore empathy techniques in an attempt to understand their audience and design a product to solve a real-life problem.
https://www.australianeggs.org.au/education/secondary/nutrition-is-no-yolk

Australian Eggs – A Day On The Farm: Farming Ethics and Farm Management.

Explore the Australian egg industry's place within our country's food production and management with Farmer John Sattler from Pure Foods, an egg farm in Tasmania. This video looks at how farmers consider the welfare of their animals in their daily practices and how farmers might use technologies to make their farming more efficient and sustainable. John talks about how he manages his farm while ensuring the best quality and value eggs possible for his consumers and how natural disasters might affect the way he makes decisions.
https://www.australianeggs.org.au/education/secondary/farming-ethics-and-farm-management

ADDITIONAL LEARNING OUTCOME

Australian Eggs – Coding Challenge

Digital Literacy

The Coding Challenge activity guide has been developed for high school Digital Technologies teachers looking to explore and expand on coding and programming concepts through the theme of egg production in Australia. The guide presents one overarching challenge for students to respond creatively, with supporting activities structured by the Design Thinking process to integrate cross-curricular priorities and help structure their understanding. There is also an extension task to encourage students to apply their understanding to new situations and stimulate further thinking. All suggested activities are appropriate for students in Years 7 - 10 but can be scaled up or down depending on student needs. Teachers can choose to use the suggested activities as standalone challenges, or incorporate them into wider units of work.
https://www.australianeggs.org.au/education/secondary/coding-challenge

VERSION 9

Digital Technologies Processes and Production Skills: Acquiring, Managing and Analysing Data

Acquire, store and validate data from a range of sources using software, including spreadsheets and databases (AC9TDI8P01)

Analyse and visualise data using a range of software, including spreadsheets and databases, to draw conclusions and make predictions by identifying trends (AC9TDI8P02)

Design and Technologies Knowledge and Understanding: Collaborating and Managing

Select and use a range of digital tools efficiently and responsibly to share content online, and plan and manage individual and collaborative agile projects (AC9TDI8P12)

Design and Technologies Processes and Production Skills: Food and Fibre Production

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

Science as a Human Endeavour: Use and Influence of Science

Examine how proposed scientific responses to contemporary issues may impact on society and explore ethical, environmental, social and economic considerations (AC9S7H03)

Explore the role of science communication in informing individual viewpoints and community policies and regulations (AC9S7H04)

Examine how proposed scientific responses to contemporary issues may impact on society and explore ethical, environmental, social and economic considerations (AC9S8H03)

Explore the role of science communication in informing individual viewpoints and community policies and regulations (AC9S8H04)

Creative & Critical Thinking

Personal & Social Capability

Digital Literacy

Numeracy

Sustainability

CLASSROOM RESOURCES

Australian Eggs – From Farm to Plate

In this module students will explore egg production in Australia. They will gain insight into the egg industry, the ethical considerations of consumers, the day-to-day work experiences of egg farmers, and consideration around sustainability and planning for the future in the industry. Students will use an inquiry-based approach to research and apply information throughout this unit, incorporating a range of digital technologies to present their information to an audience and publish it online. They will use the Solutions Fluency learning model designed by Crockett et al. (2011) which will guide their work through six phases; Define, Discover, Dream, Design, Deliver and Debrief.
https://www.australianeggs.org.au/education/secondary/eggs-from-farm-to-plate

Australian Eggs – Scrambled Science

The four Scrambled Science guides have been developed for high school Science teachers, looking for practical ways to demonstrate and explore scientific concepts in the classroom and at home. Each activity guide focuses on one specific concept, giving an overarching challenge for students to respond to, with supporting activities to integrate cross-curricular priorities and help structure their understanding. This ensures depth and richness within the learning. Each guide also features an extension task to encourage students to apply their understanding to new situations and encourage further thinking. All activities are appropriate for students in Years 7 - 10 but may be scaled up or down depending on student needs. Teachers can choose to use the suggested activities as standalone challenges, or incorporate them into wider units of work.
https://www.australianeggs.org.au/education/secondary/scrambled-sciencenew-education-resource-page-auseggs-only

VERSION 8.4

Design and Technologies: Knowledge and Understanding

Critically analyse factors, including social, ethical and sustainability considerations, that impact on designed solutions for global preferred futures and the complex design and production processes involved (ACTDEK040)

Investigate and make judgements on the ethical and sustainable production and marketing of food and fibre (ACTDEK044)

Digital Technologies: Processes and Production Skills

Define and decompose real-world problems precisely, taking into account functional and non-functional requirements and including interviewing stakeholders to identify needs (ACTDIP038)

Evaluate critically how student solutions and existing information systems and policies, take account of future risks and sustainability and provide opportunities for innovation and enterprise (ACTDIP042)

Plan and manage projects using an iterative and collaborative approach, identifying risks and considering safety and sustainability (ACTDIP044)

Creative & Critical Thinking

Literacy

Sustainability

Digital Literacy

VERSION 9

Design and Technologies Knowledge and Understanding: Technologies and Society

Analyse the impact of innovation, enterprise and emerging technologies on designed solutions for global preferred futures (AC9TDE10K02)

Design and Technologies Knowledge and Understanding: Food and Fibre Production

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

Digital Technologies Processes and Production Skills: Investigating and Defining

Define and decompose real world problems with design criteria and by interviewing stakeholders to create user stories (AC9TDI10P04)

Digital Technologies Processes and Production Skills: Evaluating

Evaluate existing and student solutions against the design criteria, user stories, possible future impact and opportunities for enterprise (AC9TDI10P10)

Digital Technologies Processes and Production Skills: Collaborating and Managing

Use simple project management tools to plan and manage individual and collaborative agile projects, accounting for risks and responsibilities (AC9TDI10P12)

CLASSROOM RESOURCE

Australian Eggs – Ethics, Eggs and Sustainable Farming

In this module students will explore egg production in Australia with a focus on ethical practice surrounding egg farming and production, consumer perceptions around purchasing eggs, the laws and regulations surrounding this industry, the level of sustainability in this industry, and possibilities for increased sustainability. Students will use an inquiry-based approach to research the information throughout this unit and a range of digital technologies to present their information to an audience. They will use the Solutions Fluency learning model designed by Crockett et al. (2011) which will guide their work through six phases, Define, Discover, Dream, Design, Deliver and Debrief.
https://www.australianeggs.org.au/education/secondary/ethics-eggs-and-sustainable-farming

ADDITIONAL LEARNING OUTCOME

Australian Eggs – Coding Challenge

Digital Literacy

The Coding Challenge activity guide has been developed for high school Digital Technologies teachers looking to explore and expand on coding and programming concepts through the theme of egg production in Australia. The guide presents one overarching challenge for students to respond creatively, with supporting activities structured by the Design Thinking process to integrate cross-curricular priorities and help structure their understanding. There is also an extension task to encourage students to apply their understanding to new situations and stimulate further thinking. All suggested activities are appropriate for students in Years 7 - 10 but can be scaled up or down depending on student needs. Teachers can choose to use the suggested activities as standalone challenges, or incorporate them into wider units of work.
https://www.australianeggs.org.au/education/secondary/coding-challenge

VERSION 8.4

Science as a Human Endeavour: Nature and Development of Science

Scientific understanding, including models and theories, is contestable and is refined over time through a process of review by the scientific community (ACSHE157) / (ACSHE191)

Science as a Human Endeavour: Use and Influence of Science

Values and needs of contemporary society can influence the focus of scientific research (ACSHE228) / (ACSHE230)

Geography: Biomes and Food Security

Human alteration of biomes to produce food, industrial materials and fibres, and the use of systems thinking to analyse the environmental effects of these alterations (ACHGK061)

Geography: Environmental Change and Management

Human-induced environmental changes that challenge sustainability (ACHGK070)

Creative & Critical Thinking

Literacy

Personal & Social Capability

Ethical Understanding

Sustainability

VERSION 9

Science as a Human Endeavour: Nature and Development of Science

Explain how scientific knowledge is validated and refined, including the role of publication and peer review (AC9S9H01) / (AC9S10H01)

Science as a Human Endeavour: Use and Influence of Science

Examine how the values and needs of society influence the focus of scientific research (AC9S9H04) / (AC9S10H04)

Geography: Biomes and Food Security

The effects on environments of human alteration of biomes to produce food, industrial materials and fibres (AC9HG9K02)

Geography: Environmental Change and Management

The human-induced changes that challenge the sustainability of places and environments (AC9HG10K01)

CLASSROOM RESOURCES

Australian Eggs – Sustainable Farm Design

This unit is a project based student-led, inquiry learning experience for students in Years 9 and 10. It is designed to be delivered over a period of 7-8 weeks in which students will be presented with opportunities to identify a real-world problem and work towards identifying a solution to the issue that produces a tangible product or strategy. They must incorporate the information and skills learnt during the unit. The pedagogical framework for this unit is based on the 5Es learning model, commonly used in Australian classrooms and identifiable by both teachers and students. The process follows a student - centred (constructivist) approach and is represented by easily definable stages which can be explored as a single session or extended across several sessions according to the needs of the students.
https://www.australianeggs.org.au/education/secondary/sustainable-farm-design

Australian Eggs – Scrambled Science

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Ekka EDUCATION

INTERNATIONAL AWARD WINNERS

The Royal Queensland Show (Ekka) is recognised for its excellence, over many years, by winning numerous awards at the International Fairs & Expos (IAFE) Awards.

IAFE has more than 1,000 members representing agricultural fairs from the United States, Canada, the United Kingdom, and Australia.

These awards represent the continued dedication the Ekka plays in bridging the country city divide, and educating the next generation on the essential role farming and agriculture plays in their everyday lives.

www.ekka.com.au