

EKKA

EDUCATION

EKKA LEARNING TRAIL TEACHER'S GUIDE

*Learning Trail Activities and
Curriculum-aligned Classroom Resources*



PRIMARY YEARS

DOCUMENT INFORMATION

The following document has been developed to help teachers plan their Ekka Excursion through the Ekka Learning Trail activities with activities to support in-class learning. These resources are purpose built for students in Prep to Grade 6. Each Learning Trail activity is aligned to Australian Curriculum V9.

Each trail point at Ekka has corresponding videos, activities and worksheets for teachers and students from agricultural industry experts that highlight the value of exploring agriculture in the classroom.

Our Ekka Learning Trail is a self-guided Ekka Excursion activity that provides students with their own 'passport booklet' and encourages them to journey around the grounds to collect stamps from each of the eight learning trail points. You will receive these Learning Trail Passports posted to your school prior to your excursion to the Ekka, as long as you have made a school group booking before the booking closing date. If you require more, additional passports can be collected from the Information Booths around the grounds.

This opportunity educates students through sensory, hands-on experiences such as interacting with and feeding goats, sheep and more in the animal nursery, milking dairy cows and becoming a little backyard farmer.

For further information on risk assessments, please refer to the Curriculum Activity Risk Assessment (CARA) guidelines from Education Queensland: https://education.qld.gov.au/curriculum/stages-of-schooling/CARA/activity_guidelines/animal-observation-handling.

EKKA EXCURSION INFORMATION

For further information regarding Ekka Excursion's please see the Ekka Excursion Booklet 2024: <https://www.ekka.com.au/education/ekka-excursion/>.

IMPORTANT CONTACTS

Competition Enquiries

entries@rna.org.au

Education Content Enquiries

education@ekka.com.au

Ekka School & Group Bookings Enquiries

groupbookings@ekka.com.au



EDUCATION

DAY AT A GLANCE

ACTIVITY	LOCATION	TIME
BEES	Ag Education Hall (H14)	9am-7pm
LITTLE BACKYARD FARMERS <i>presented by Somerville House</i>	Ag Education Hall (H14)	9am-7pm
AGTECH ALLEY	Ag Education Hall (H14)	9am-7pm
COTTON	Ag Education Hall (H14)	9am-7pm
MORNING TEA	Recommended: Heritage Hill (J12)	At your discretion
SHEEP SHEARING	Sheep Shearing (N11)	10am, 11am, 12pm, 2:30pm, 4pm
ANIMAL NURSERY	Animal Nursery (Q12)	9am-5pm Use Schools Express Queue (Queue closes 4:30pm)
LUNCH	Recommended: John Macdonald Stand (J7)	At your discretion
HORSING AROUND SHOW <i>presented by QOTT</i>	Show Ring (P5)	11am, 12pm, 2pm, 3pm
NORCO: GRASS TO GLASS	Large Animal Pavilion - Ground (H5)	9:30am-5pm Milking Barn: 9:30am, 11am, 12:30pm, 2:30pm, 4pm

Ekka

EDUCATION

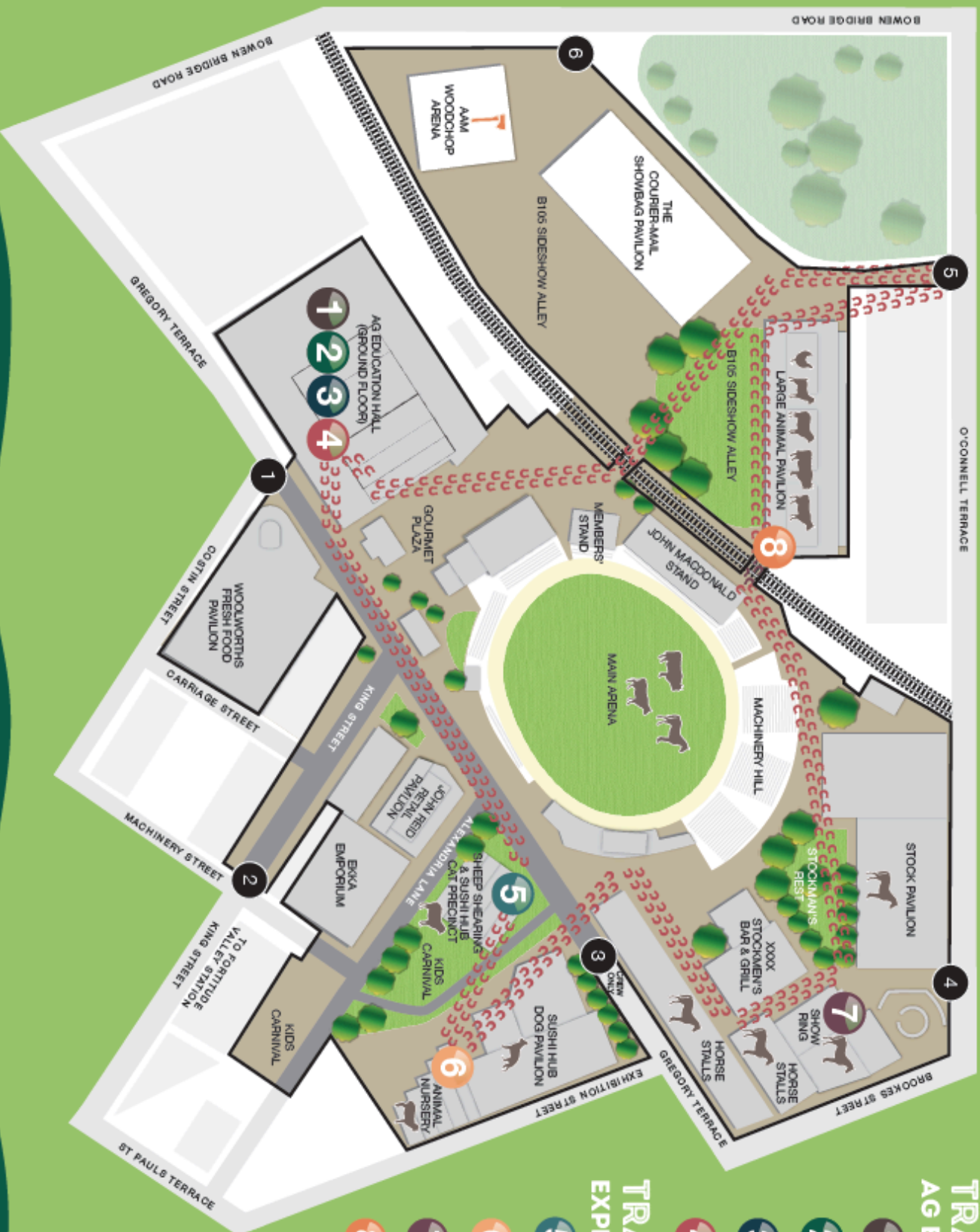
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LEARNING TRAIL MAP



TRAIL POINTS AG EDUCATION HALL

- 1** Bees
 - 2** Little Backyard Farmers
presented by Somerville House
 - 3** Agtech Alley
 - 4** Cotton
- ## TRAIL POINTS EXPLORE EKKA
- 5** Sheep Shearling
 - 6** Animal Nursery
 - 7** Horsing Around Show
presented by QOTT
 - 8** Norco: Grass to Glass

Stamp your
passport at
the Learning Trail
point Stands.
These stands will
help answer
questions!

DETAILS

When: 9am-7pm

Where: Ag Education Hall

ACTIVITY

The Queensland Beekeepers' Association (QBA), first formed at the Ekka in 1886, will host an interactive activation where students learn all about apiculture (beekeeping). 'Bee' sure to check out the QBA stand, where you can see live bee presentations as well as candle-rolling, taste Queensland's extraordinary honey, see award-winning honey on show and more!



ADDITIONAL ACTIVITY: LIVE BEE DEMONSTRATION

DETAILS

When: 10:30am, 11:30am,
1:30pm, 2:30pm

Where: Ag Education Hall

DEMONSTRATION

The Queensland Beekeepers' Association will present a fun, interactive show about pollination and how bees support our food security. Watch on as beekeepers show you an active beehive, going through the processes involved in being a beekeeper and learn about the magic product we get from bees... honey!



PASSPORT

AG EDUCATION HALL

1 Bees
Visit the bees and sample their honey!

LIFECYCLE OF A BEE
Label each life stage of a bee.

ADAPTATION: COMPOUND EYES

Where can bees see all at once?
 A. In front & behind
 B. Above & below
 C. Left & right side
 D. All of the Above

Answer:

What do bees need to see to survive?

1. _____
 2. _____

Trail Stamp 1

PASSPORT ANSWERS

This sign will be visible on the Learning Trail Stands for students to find the answers.

LEARNING TRAIL

1 Bees

LIFECYCLE OF A BEE
Label each life stage of a bee.

ADAPTATION: COMPOUND EYES

Where can bees see all at once?
 A. In front & behind
 B. Above & below
 C. Left & right side
 D. All of the Above

Answer: **D**

What do bees need to see to survive?

1. **PREDATORS**
 2. **POLLEN**

Fun fact...
75% of insects have compound eyes

Ekka
EDUCATION



DETAILS

When: 9am-7pm

Where: Ag Education Hall

ACTIVITY

Little Backyard Farmers presented by Somerville House is an interactive educational activity teaching kids about urban farming and horticulture (the practice of garden cultivation and management), poultry, and apiculture (beekeeping). There are five hands-on stations where children are taught the importance of future sustainability practices through composting, planting seeds, growing vegetables and nurturing plants.

STATIONS

Chicken Coop: Kids will enter a large coop, searching for an egg to add to their basket among the chickens (props) and hay. They'll learn about life cycles and raising hens.

Flowers and Bees: In this colour matching activity, children will weave their way through a giant flower garden to collect pollen. They'll put their pollen disc into the beehive, before moving to the next station.

Planting: Children will dig in a garden bed, planting vegetables.

Harvesting: Children will harvest vegetables to learn about garden care and growth. They'll find out how long different fruits and vegetables take to grow and will add some lettuce, potatoes and carrots to their basket.

Fruit Orchard: Children will water apple and orange trees (props) and pick a fruit for their basket. They'll also have to identify whether certain fruits and vegetables are in fact a fruit or a vegetable.





PASSPORT


AG EDUCATION HALL


2 *Little Backyard Farmers*
Presented by Somerville House
Experience life on the farm!

HOW DO SEEDS TRAVEL?
Unscramble the words.



nwdi



ewrat



nilasma



hmsuna


FRUIT OR VEGETABLE?
Tick the right box.



 Fruit
 Vegetable



 Fruit
 Vegetable



 Fruit
 Vegetable



 Fruit
 Vegetable


 Fruit
 Vegetable


 Fruit
 Vegetable


 Fruit
 Vegetable


 Fruit
 Vegetable



PASSPORT ANSWERS


This sign will be visible on the Learning Trail Stands for students to find the answers.


LEARNING TRAIL


2


Little Backyard Farmers
Presented by Somerville House

HOW DO SEEDS TRAVEL?
Unscramble the words.



nwdi
WIND



ewrat
WATER



nilasma
ANIMALS



hmsuna
HUMANS


FRUIT OR VEGETABLE?
Tick the right box.



Vegetable



Fruit



Vegetable


Fruit


Vegetable


Fruit


Fruit


Vegetable

Fruit properties:

1. Seeds
2. Fruit flesh

Vegetables are the stem, leaves, or roots of a plant.



DETAILS

When: 9am-7pm

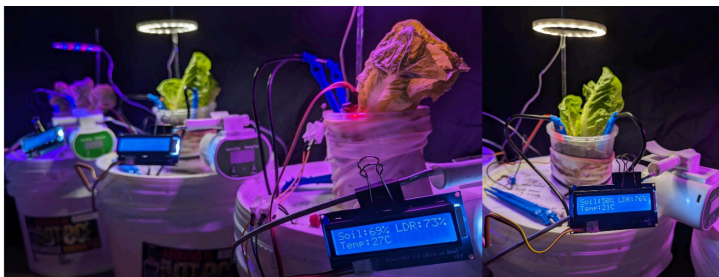
Where: Ag Education Hall

EKKA'S GREENHOUSE INNOVATOR COMPETITION

The Greenhouse Innovator Competition is a technology driven, immersive project where selected school groups conducted experiments facilitated by integratedSTEM. Successful schools received Greenhouse Innovator kits.

Students monitored plant growth and analysed the data that they collected. Following experimentation, students drew conclusions from their data and prepared a research poster and supporting video presentation to communicate their findings.

A panel of judges have awarded the top entries for both age categories and these kits will be on show as well as different components of the kits for students to observe on display.



MORE IN AGTECH ALLEY!

BOTBUILDERS ROBOTICS

This activation will be delivered by students who will capture their experiences with robotics in an education setting, raising awareness for robotics as an educational tool and a fun, engaging way of learning about technologies (hardware and software).

There will be robots available for children to interact with, where they can choose to either play robot soccer or a game of battle bots. This will generate excitement surrounding robotics, as we see applications of robotics in a play-based, interactive model for teaching and education around technologies.

QUEENSLAND GOVERNMENT TECH & INNOVATION

Come visit the Department of Agriculture and Fisheries AgTech activation in the Ag Education Hall.

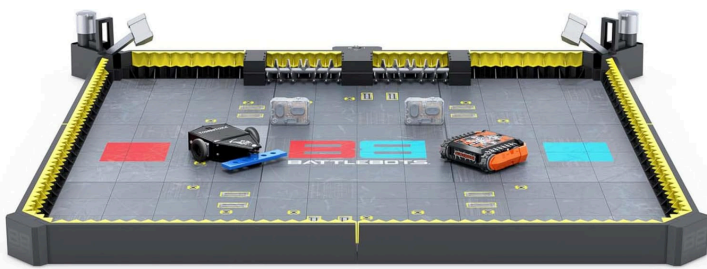
Experience virtual reality (VR) designed by Forest Learning allowing young people to be part of a virtual field trip to one of Queensland's Cypress Pine Woodland or Dry Open Eucalypt Forests.

And don't forget, students can become a master in drone mustering and aerial stockmanship using SkyKelpie's virtual playground!



INDUSTRIAL DRONE SERVICES AUSTRALIA

Industrial Drone Services Australia is a locally based drone service provider that specialises in the latest drone application in AgTech. Their activation showcases some of the latest drone technology on the market and also showcases the data outputs that this technology is capable of, highlighting the valuable insights that this data can provide farmers, land managers and the wider community. Industrial Drone Services Australia has many years of experience across many disciplines of the drone industry and can offer a comprehensive overview of the pathways in the drone industry and the services that are most sought after.



UNIVERSITY OF SOUTHERN QUEENSLAND

"Changing the Game: Resilience to Seasonal Variations and Drought through AgTech"

This activation is based on University of Southern Queensland's research project where university students assess the practical and commercial feasibility of various ag technologies on farms to manage the risks associated with seasonal variation and drought preparedness.

PhD students undertake work informing farmers and advisors on technology options and approaches to best farming practices for assessing the reward-risk payoffs of management decisions due to seasonal variation and drought. These students study crop attributes, crop stressors, indicators for crop yields, cropping decision-making, and gather data about the environment.

Students will learn about University of Southern Queensland's research initiatives and find out all about the far-reaching impacts of AgTech, while also gaining an understanding for the offerings for future careers and education opportunities.




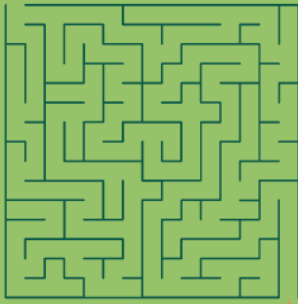
PASSPORT

AG EDUCATION HALL

3 *Agtech Alley*
Discover technology that's being used on farms!

Binary code is a special language that uses only 0s and 1s. It helps computers receive information and perform different tasks.

Help the drone find the crop to spray fertiliser.

*You are a robot agent!
Decrypt this message:*


01000100 =

01010010 =

01001111 =

01001110 =

01000101 =



What's the first letter of your name in binary code?

Trail Stamp 3

PASSPORT ANSWERS

This sign will be visible on the Learning Trail Stands for students to find the answers.

LEARNING TRAIL

3
Agtech Alley

Binary code is a special language that uses only 0s and 1s. It helps computers receive information and perform different tasks.

*You are a robot agent!
Decrypt this message:*

01000100 = **D**

01010010 = **R**

01001111 = **O**


01001110 = **N**

01000101 = **E**

BINARY CODE ALPHABET

A=01000001 N=01001110
B=01000010 O=01001111
C=01000011 P=01010000
D=01000100 Q=01010001
E=01000101 R=01010010
F=01000110 S=01010011
G=01000111 T=01010100
H=01001000 U=01010101
I=01001001 V=01010110
J=01001010 W=01010111
K=01001011 X=01011000
L=01001100 Y=01011001
M=01001101 Z=01011010

FLUX TOWER



This binary-code powered tower measures gas exchange between the ground and the atmosphere (including cow farts)!

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DETAILS

When: 9am-7pm

Where: Ag Education Hall

ACTIVITY

Cotton Australia will be showcasing the cotton industry and the process of fibres from 'field to fashion', taking you on a journey through the processes, learning what cotton is, what it is used for, and understanding we are surrounded by cotton in its extraordinary variety of uses.

Cotton on stems will be displayed, showcasing crops prior to harvest, showing the 'Field' in the 'Field to Fashion process'.

The 'Dirt to Shirt' story will be showcased through: samples of seed; toy picker; unginned/ginned cotton; roving; yarn, and a variety of end-products including: cottonseed oil; soaps; medical supplies; hygiene products; furnishing; manchester; and clothing, promoting consumer awareness.

Microscopes are available for students to interact with as they look at fibres and fabrics up close.

VIRTUAL REALITY

Through the Cotton Australia Virtual Reality Experience, students of all ages can discover more about the cotton industry while virtually exploring a cotton farm in Central Queensland. From raw cotton to the many products we use daily, this is an educational opportunity not to be missed.



PASSPORT

AG EDUCATION HALL

4 Cotton
Learn the process of cotton from 'Field to Fashion'!

FIELD TO FASHION
Draw lines to make the correct order



Planting seeds



Harvesting

Weaving

Dyeing



Final garment




Ekka's Natural Fibres Fashion Parade's

Trail Stamp 4

PASSPORT ANSWERS

This sign will be visible on the Learning Trail Stands for students to find the answers.

LEARNING TRAIL

4 Cotton
FIELD TO FASHION
Draw lines to make the correct order



Planting seeds



Harvesting

Weaving



Dyeing



Final garment



Ekka's Natural Fibres Fashion Parade's

Fun fact...
Australia's cotton growers clothe 500 MILLION people each year.

Fun fact...
Cotton seeds contain protein, oil, and fibre and are used in animal feed

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DETAILS

When: 10am, 11am, 12pm,
2:30pm, 4pm

Where: Sheep Shearing (N11)

SHOW

Sheep shearer Jonathan and roustabout Mikayla are showcasing their skills in the shearing shed this year at Ekka 2024.

Jonathan will be showcasing the skills of shearing with machine shears as well as with the traditional blade shears with Mikayla showing her talents of throwing the fleece and knowledge about wool. They will be teaching Ekka visitors the process of shearing, grading wool and about different products wool can be made into.

You may even be lucky enough to be picked to give the shearer a hand at shearing the sheep and be sure to ask the shearer what a staple of wool is.



PASSPORT

EXPLORE EKKA

5 *Sheep Shearing*
Find out about sheep and the uses of wool!

WHAT'S MY NAME?
Dad Sheep Mum Sheep Baby Sheep Group of Sheep



SHEEP PRODUCTS AND USES
Write the sheep product under the correct image below.
Wool, Lanolin (grease), Sheepskin (leather), Dairy.





Why wool?

Trail Stamp 5

PASSPORT ANSWERS

LEARNING TRAIL

5

Sheep Shearing

WHAT'S MY NAME?
Dad Sheep Mum Sheep Baby Sheep Group of Sheep



RAM EWE LAMB FLOCK

SHEEP PRODUCTS AND USES
Write the sheep product under the correct image below.
Wool, Lanolin (grease), Sheepskin (leather), Dairy.



LEATHER WOOL DAIRY LANOLIN

Recyclable
Able to be reused.

Biodegradable
Organic material that's broken-down by nature.

Renewable
Made from natural resources.

Why wool?



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DETAILS

When: 9am-5pm

Use Schools Express Queue
(Queue closes 4:30pm)

Where: Animal Nursery (Q12)

ACTIVITY

Ekka's Animal Nursery is home to more than 500 adorable animals. Visitors love getting up close to these farmyard cuties which include llamas, alpacas, donkeys, a miniature horse, calves, sheep, goats, guinea pigs, rabbits, piglets, puppies, lambs, chickens and ducks.

The Animal Nursery gives people the opportunity to interact with farm animals they don't normally see in their everyday lives, making memories that last a lifetime.



PASSPORT

PASSPORT ANSWERS

EXPLORE EKKA

6 *Animal Nursery*
Learn about different types of animals and how they came to be.

BREEDING

 +  = 

 +  = 

Make your own animal combination!

 +  = 

Are rabbits introduced or native to Australia?

 **Trail Stamp 2**

LEARNING TRAIL

6 *Animal Nursery*

BREEDING

 +  = 

 +  = 

Are rabbits introduced or native to Australia?
INTRODUCED

HOW MANY FERAL RABBITS ARE THERE IN AUSTRALIA?
150 million and growing!
Feral rabbits impact Australia's Indigenous flora and fauna.

WHY WERE CANE TOADS INTRODUCED?
To help the cane industry deal with insect attacks on sugar cane roots.
What year? 1935



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DETAILS

When: 11am, 12pm, 2pm, 3pm

Where: Show Ring (P5)

SHOW

The Horsing Around Show presented by Queensland Off-The-Track will see acclaimed horse trainer Dave Manchon proudly showcase Racing Queensland's 'off the track' initiative.

Dave will be joined by some well-known retired racehorses, as he talks about his training methods and how they can apply to these off the track stars. This educational show will demonstrate what is possible with some of these equine super athletes.



PASSPORT

EXPLORE EKKA

7 *Horsing Around Show*
Presented by Queensland Off-the-Track
Discover more about horses and their domestication!

Identify the features of the horse you see.



Snip Star Stripe Blaze Bald face



Coronet Pastern Sock Half-stocking Stocking

DOMESTICATION
Taming an animal and keeping it as a pet or on a farm.

What is another name for a domesticated horse?




PASSPORT ANSWERS


LEARNING TRAIL

7

Horsing Around Show
Presented by Queensland Off-the-Track
Identify the features of the horse you see.




Snip Star Stripe Blaze Bald face



Coronet Pastern Sock Half-stocking Stocking

DOMESTICATION
Taming an animal and keeping it as a pet or on a farm.

What is another name for a domesticated horse?



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DETAILS

When: 9:30am-5pm

Where: Large Animal Pavilion -
Ground

ACTIVITY

Escape the city and join us on a journey from the grass enjoyed by Norco's dairy cows through to their award-winning milk that goes into your cup of tea or cereal. The immersive Norco Grass to Glass Experience provides a taste of life on the dairy farm, as well as the process of taking milk from the farm to the factory and then onto the fridge shelf at your local supermarket. Your journey ends at the Norco shop where you can try your luck at the Norco Cape Byron Knock Down Game to win a small bottle of Norco Full Cream Milk.

On the journey you will also learn about the history of Norco itself, which began in 1895, when a group of 40 farmers gathered under a tree at Clunes, near Byron Bay, to discuss how they could come together to secure a better and more profitable future for the dairy farmers. Together they founded Australia's largest and oldest dairy co-operative - Norco.

ADDITIONAL ACTIVITY: NORCO MILKING BARN DETAILS

When: 9:30am, 11am, 12:30pm,
2:30pm, 4pm

Where: Large Animal Pavilion -
Ground

DEMONSTRATION

Calling all junior farmers-to-be and dairy lovers to learn about all things dairy at the Norco Milking Barn. Join us for several milking demonstrations in the Norco Milking Barn throughout the day where Norco's dairy experts will take you through the milking process and you'll get the opportunity to learn how to make cream and butter. You can even try your hand at milking one of the beautiful dairy cows!




PASSPORT

EXPLORE EKKA

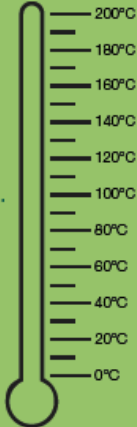
8 *Norco: Grass to Glass*

Learn the process of dairy production from grass to glass!

How many stomachs do cows have?
Circle the correct answer.




Milk is heated during the process of pasteurisation. Colour up to what temperature pasteurisation begins at...




Did you know one serve of dairy is equivalent to:


2 slices of cheese (40g)



3/4 cup of yoghurt (200mL)



1 Cup of Milk (250mL)



How many millilitres of milk do you need in a day?

Trail Stamp 8

PASSPORT ANSWERS

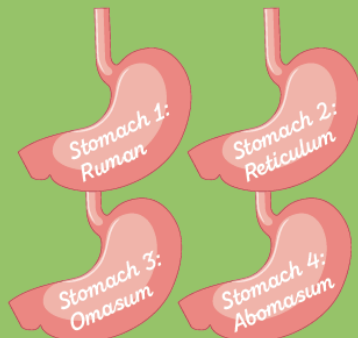
This sign will be visible on the Learning Trail Stands for students to find the answers.

LEARNING TRAIL


8

Norco: Grass to Glass

How many stomachs do cows have? 4



Milk is heated during the process of pasteurisation. Colour up to what temperature pasteurisation begins at... 72°C



MINIMUM RECOMMENDED NUMBER OF SERVES FROM THE DAIRY FOOD GROUP

	Age (years)	No. of serves per day
Boys	4-8	2
	9-11	2 ^{1/2}
	12-13	3 ^{1/2}
Girls	4-8	1 ^{1/2}
	9-11	3
	12-13	3 ^{1/2}

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PASSPORT

Bonus Trail Points!

EXPLORE VR IN THE AG EDUCATION HALL

VR (Virtual Reality): A completely simulated 3D environment created with computer technology.

Find an experience at:

- AgForce
- Canegrowers
- Cotton Australia
- Meat & Livestock Australia
- Queensland Government



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Find out more!

printed on recycled paper



Agricultural Education

Primezone - Food and fibre classroom educational resources.

The Primary Industries Education Foundation Australia (PIEFA) is a tripartite, not-for-profit company limited by guarantee, formed through the collaboration of the Australian Government, primary industries organisations and the education sector. PIEFA's initiative, Primezone, provides teachers, parents and students with an Australian Curriculum driven range of high quality, vetted, primary industries education resources. Visit Primezone to access/download more than 600 food and fibre education activities, quizzes, videos, worksheets, and lots more – for Foundation through to Year 12. Many resources include teacher guides and are ready to incorporate into your classroom lesson plans. Access PIEFA's Primezone resources here...

<https://primezone.edu.au/>

George the Farmer

Food and fibre; we simply can't live without it. Our lives are intrinsically linked to the land — whether you hail from a big city, a rural town or a remote slice of Australia — and the George the Farmer team passionately believe that knowledge is power. Our myriad of George the Farmer resources are helping to educate and inspire the next generation — the future leaders, big thinkers, innovators, makers, fixers, creatives, teachers, policy makers and farmers. George the Farmer's vision is a world where kids connect to the earth, food and farm. Explore books, toys and games which provide hours of educational fun. Access George the Farmer's resources here...

<https://www.georgethefarmer.com.au/collections/teachers-guides>

ABC Education - Agriculture

ABC Education brings you high-quality educational content to use at home and in the classroom. All our resources are free and mapped to the Australian Curriculum. Access ABC Education's resources here...

<https://www.abc.net.au/education/topic-agriculture/102208260>

Junior Landcare

Landcare Australia's Junior Landcare program provides children the opportunity to play an active role in ensuring the safe future of their environment. Junior Landcare have made it easy and FUN for you to get the children in your life involved in environmental sustainability activities at school, at home or in your community. Access Junior Landcare's resources here...

<https://juniorlandcare.org.au/learningcentre/>

Agricultural Education

Deadly Story - Food and Agriculture

Deadly Story is a cultural resource portal that aims to support Aboriginal and Torres Strait Islander children and young people who are in out-of-home care, to grow in their knowledge of who they are and where they come from as well as support their growing connection to Culture, Country and Community. Before colonisation, Aboriginal people were not simply hunters and gatherers as we are taught in school. Aboriginal people had a deep knowledge of the land and knew how to harvest our food sustainably. Access Deadly Story's resources here...

https://deadlystory.com/page/culture/Life_Lore/Food

Bees

Love Food? Love Bees! Education Resources

Julie Armstrong, the founder of ACT for Bees & Other Pollinators became very aware of the crisis with bees, affecting populations worldwide, whilst in Europe in 2013. ACT for Bees & Other Pollinators has put together some great resources and actions that you and your kids can take part in to raise awareness and habitat for these local legends. Access ACT for Bees' resources here...

<https://cool.org/love-food-love-bees-curriculum-resources>

Climate kids connects - Pollinators

Climate kids is a series of community-based collaborative projects that provide youth with education on climate change through science activities, storytelling, and art. Each Climate kids project brings together local artists, scientists, educators, and storytellers to engage students of all socioeconomic levels and inspire them to become environmental stewards. Access Climate kids connects' resources here...

<https://www.climatekids.org/pollinators>

More: See pages 25-26

Little Backyard Farmers

Healthy Kids Association

Healthy Kids Association is a health promotion charity and member organisation which works closely with schools, canteens, government, health professionals, food companies and families to improve access to nutritious food and educate children and families on how to make healthy choices for a healthy life. Access Healthy Kids Associations' resources here...

<https://healthy-kids.com.au/teachers/>

Phenomenom

Phenomenom is a free digital toolkit for teachers, jam-packed with springboard episodes and lesson plans, designed to tickle students' tastebuds for learning. Check out the latest animated Nomcast episodes with ACv9.0-aligned lesson plans! Everything you need to know to use Phenomenom (and Nomcast) to their full potential can be found in our [Teacher Guidebook](#). Access Phenomenom's resources here...

<https://phenomenom.com.au/>

More: See pages 25-26

AgTech Alley

NSW Government - Education

Primary Industries Education Foundation Australia (PIEFA) is a national not for profit company, that assists teachers and schools with support for students to know more about where their food and fibre comes from and about the vast range of careers in agriculture. Agriculture encompasses food and fibre industries and is an excellent vehicle for teaching STEM. PIEFA has a number of programs and resources that support STEM in agriculture which are showcased in this video. Access PIEFA's resources here...

<https://education.nsw.gov.au/teaching-and-learning/curriculum/stem/stem-curriculum-resources/full-steam-ahead>

National Geographic - Education

Year 3-6

National Geographic is where education meets exploration, transforming the learning experience for young people and the educators who reach them with the tools, resources, and support they need to feed their curiosity and become the explorers of tomorrow. Technological innovations have greatly shaped agriculture throughout time. Explore developments in agricultural technology and its impacts on civilization with this curated collection of classroom resources. Access National Geographic's resources here...

<https://education.nationalgeographic.org/resource/impact-technology-agriculture/>

More: See pages 25-26

Cotton

Cotton Australia resources - Primary

Cotton Australia has provided a united voice for cotton growers across research and development, stewardship, natural resource management and cotton production issues. Are you an educator wanting to teach your students about the Australian cotton industry? Learn the story of Australia's cotton industry right here, and access educational resources to use in your classroom. Access Cotton Australia's resources here...

<https://cottonaustralia.com.au/cotton-australia-resources-primary>

More: See pages 25-26

Sheep Sheering

Learn About Wool

Australian Wool Innovation is a not-for-profit enterprise that conducts research, development and marketing along the worldwide supply chain for Australian wool on behalf of about 60,000 woolgrowers that help fund the company. Learn About Wool education resources are helping teach primary and secondary students about the unique and natural benefits of Australian wool. The extensive classroom resources describe in detail the on-farm production, processing, marketing and fashion aspects of Australia's natural fibre. A platform that contains a wealth of resources, lesson plans and activities for teachers and students from early childhood through to senior secondary years. Access Learn About Wool's resources here...

<https://www.learnaboutwool.com/>

For Teachers for Students - Cattle and sheep farming today

Meat & Livestock Australia's purpose is to foster the long-term prosperity of the Australian red meat and livestock industry by investing in research and marketing activities. 'Cattle and sheep farming today' teaching resources explore farming and food production within the red meat industry, where students learn about sustainable farming practices, red meat nutrition, food production and the use of science and technology in agriculture. Resources include an interactive digital board game, facts for students, a six-topic unit of work, extra cross-curricular lesson ideas, activity sheets, curriculum tables (for years 4 to 8) and extra resources including videos and websites. All resources are curriculum linked to support the teaching of science, humanities and social sciences, technologies and design with links to literacy, history and sustainability for Primary and Middle Years. Access MLA's resources here...

<https://www.forteachersforstudents.com.au/site/themed-curriculum/cattle-sheep-farming/>

More: See pages 25-26

Animal Nursery

Think Kind Animal Welfare Education - Free Teaching Resources

Free animal welfare education resources for Australian primary school teachers. Access Think Kind's resources here...

<https://thinkkind.org/category/topics/farm-animals/>

RSPCA - Education

The RSPCA is an independent, community-based charity providing animal care and protection services across the country. The RSPCA has a range of educational resources available for free to help children and adults alike learn more about animal welfare. These resources include educational games, tools and programs for teachers, educators and parents that aim to teach children about animals and increase their understanding and awareness of animal welfare. Access RSPCA's resources here...

<https://www.rspca.org.au/learn/education/>

More: See pages 25-26

Horsing Around Show

Thoroughbred Industry Careers - Hold the Reins

Thoroughbred Industry Careers encourage students to gallop towards a racing career! For anyone who has ever dreamt of a life with horses, meeting new people and exploring the world - this is the thoroughbred industry. Discover a career like none other. They provide a workbook for children aged 5+ years with more than 50 pages of educational content. Access Thoroughbred Industry Careers' resources here...

<https://www.ekka.com.au/media/1f4hiy3k/hold-the-reins-a5-booklet-blue-cover-v2.pdf>

More: See pages 25-26

Nocro: Grass to Glass

Dairy Australia - Discover Dairy

Teaching your students about where dairy foods come from and why they are important as part of a balanced diet is easy with Dairy Australia's free curriculum website for primary schools. The Discover Dairy website was developed by Dairy Australia to engage and educate teachers and students about the Australian dairy industry and the nutritious products it produces. We hope you'll enjoy exploring Discover Dairy's comprehensive range of free teaching resources including background information, curriculum linked inquiry units and activity ideas, as well as sharing the suite of interactive animations and educational games with your students. All the tools and curriculum linked resources needed to bring the Australian dairy industry into the classroom - Discover Dairy at your school today! Access Dairy Australia's resources here...

<https://www.dairy.edu.au/>

More: See pages 25-26

EDUCATION EXTRAS

Sugarcane

CANEGROWERS - Student resources

CANEGROWERS is a not-for-profit public company providing a professional and cohesive voice for the members of 13 local grower companies, located in all of the sugarcane regions of Queensland. CANEGROWERS and the Primary Industries Education Foundation have developed a curriculum-aligned resource for schools. Called One Plant, Many Products it is available on the Primezone website and targets years 5-8 science, design and technology and geography requirements. These Farmer Time activities and accompanying learning resources can be utilised to engage your students in food and fibre learning to celebrate National Ag Day, visit the Primezone website for more food and fibre learning resources. Another great resource from PIEFA is the STEM Challenge - Sugarcane Maths Challenge Cards designed for Year 6. Follow the sugarcane journey from paddock to exporting with our new CANEGROWERS A2 poster - a great resource for your classroom. Access CANEGROWERS' resources here...

<https://www.canegrowers.com.au/page/resources/student-resources>

Poultry

All About Eggs

Australian Eggs advocates for all things eggs helping Aussie egg farmers implement sustainable practices that provide the best care for animals and the environment – setting the standard for quality, nutrient-rich eggs across the country. All About Eggs are pleased to introduce their brand-new resources page for teachers! Here you can find complete lesson plans, amazing resources and links to videos that will support you in teaching your students about Australia's Egg Industry. Access Australian Eggs' resources here...

<https://www.australianeggs.org.au/education/primary>

Poultry Hub Australia - Resources

Poultry Hub Australia (PHA) is a not-for-profit organisation located at the University of New England in Armidale, NSW. PoultryHub supports teachers and students at primary and secondary schools by providing information on education opportunities, as well as resources to assist in learning. Access Poultry Hub Australia's resources here...

<https://www.poultryhub.org/education/resources>

EDUCATION EXTRAS

Meat

Australian Good Meat Education

Good Meat is an online platform created by [Meat & Livestock Australia](https://www.meatandlivestock.com.au/) (MLA) on behalf of the red meat and livestock industry. It provides important information about cattle, sheep and goat production in Australia, focusing primarily on animal welfare, protecting the environment and health and nutrition. Meet cross-curricular learning outcomes while educating students about one of the country's most valuable primary industries through our range of free, 'teaching-ready' resources for primary and secondary students. Designed for online or hardcopy use the materials use the most current Australian red meat and livestock industry information with an emphasis on Sustainability as a cross-curriculum priority area. Linked to the Australian Curriculum V9.0 content covers a range of topics from on-farm production through the supply chain, emerging technologies, food security, nutrition, and marketing and advertising. Access Australian Good Meat Education's resources here...

<https://www.goodmeat.com.au/education>

Foundation

Science, Science understanding - Biological sciences

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

Learning Trail Points Aligned: 1, 2, 4, 5, 6, 7, 8

Science, Science understanding - Chemical sciences

Recognise that objects can be composed of different materials and describe the observable properties of those materials ([AC9SFU03](#))

Learning Trail Points Aligned: 1, 2, 4, 5, 8

Design and Technologies, Knowledge and Understanding - Technologies and society

Explore how familiar products, services and environments are designed by people ([AC9TDEFK01](#))

Learning Trail Points Aligned: 1, 3, 4, 5, 8

Digital Technologies, Knowledge and understanding - Digital systems

Recognise and explore digital systems (hardware and software) for a purpose ([AC9TDIFK01](#))

Learning Trail Points Aligned: 3, 4



Year 1***HASS, Knowledge and understanding - History***

Continuity and change between aspects of their daily lives and their parents' and grandparents' childhoods ([AC9HS1K02](#))

Learning Trail Points Aligned: 1, 2, 3, 4, 5, 7, 8

HASS, Knowledge and understanding - Geography

How places change and how they can be cared for by different groups including First Nations Australians ([AC9HS1K04](#))

Learning Trail Points Aligned: 2, 3

Science, Science understanding - Biological science

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](#))

Learning Trail Points Aligned: 1, 2, 3, 4, 5, 6, 7, 8

Science, Science understanding - Earth and space sciences

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

Learning Trail Points Aligned: 1, 2, 3, 4, 5, 6, 7, 8

Science, Science as a human endeavor - Use and influence of science

Describe how people use science in their daily lives, including using patterns to make scientific predictions ([AC9S1H01](#))

Learning Trail Points Aligned: 1, 2, 3, 4, 5, 6, 7, 8



Year 1 and 2

Design and Technologies, Knowledge and understanding - Technologies and society

identify how familiar products, services and environments are designed and produced by people to meet personal or local community needs and sustainability ([AC9TDE2K01](#))

Learning Trail Points Aligned: 1, 2, 3, 4, 5, 8

Design and Technologies, Knowledge and understanding - Technologies context: Engineering principles and systems; Materials and technologies specialisations

Explore how technologies including materials affect movement in products ([AC9TDE2K02](#))

Learning Trail Points Aligned: 3

Design and Technologies, Knowledge and understanding - Technologies context: Food and fibre production; Food specialisations

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

Learning Trail Points Aligned: 1, 2, 3, 4, 5, 6, 8

Design and Technologies, Knowledge and understanding - Technologies context: Food and fibre production; Food specialisations

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

Learning Trail Points Aligned: 1, 2, 8

Digital Technologies, Knowledge and understanding - Digital systems

Identify and explore digital systems and their components for a purpose ([AC9TDI2K01](#))

Learning Trail Points Aligned: 3, 4

Digital Technologies, Processes and production skills - Evaluating

Discuss how existing digital systems satisfy identified needs for known users ([AC9TDI2P03](#))

Learning Trail Points Aligned: 3, 4



Year 2

HASS, Knowledge and understanding - History

How technological developments changed people's lives at home, and in the ways they worked, travelled and communicated ([AC9HS2K02](#))

Learning Trail Points Aligned: 3, 4, 7

HASS, Skills - Questioning and researching

Develop questions about objects, people, places and events in the past and present ([AC9HS2S01](#))

Learning Trail Points Aligned: 1, 2, 3, 4, 5, 7, 8

Science, Science as a human endeavour - Use and influence of science

Describe how people use science in their daily lives, including using patterns to make scientific predictions ([AC9S2H01](#))

Learning Trail Points Aligned: 1, 2, 3, 4, 5, 6, 7, 8



Year 3

Science, Science understanding - Biological sciences

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

Learning Trail Points Aligned: 1, 2, 4, 5, 6, 7, 8

Science, Science understanding - Earth and space sciences

Compare the observable properties of soils, rocks and minerals and investigate why they are important Earth resources ([AC9S3U02](#))

Learning Trail Points Aligned: 2, 4

Science, Science understanding - Chemical sciences

Investigate the observable properties of solids and liquids and how adding or removing heat energy leads to a change of state ([AC9S3U04](#))

Learning Trail Points Aligned: 8

Science, Science as a human endeavour - Nature and development of science

Examine how people use data to develop scientific explanations ([AC9S3H01](#))

Learning Trail Points Aligned: 3

Science, Science as a human endeavour - Use and influence of science

Consider how people use scientific explanations to meet a need or solve a problem ([AC9S3H02](#))

Learning Trail Points Aligned: 3



Year 3 and 4

Design and Technologies, Knowledge and understanding - Technologies and society

Examine design and technologies occupations and factors including sustainability that impact on the design of products, services and environments to meet community needs ([AC9TDE4K01](#))

Learning Trail Points Aligned: 1, 2, 3, 4, 5, 6, 7, 8

Design and Technologies, Knowledge and understanding - Technologies context: Food and fibre production; Food specialisations

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

Learning Trail Points Aligned: 1, 2, 4, 5, 8

Design and Technologies, Knowledge and understanding - Technologies context: Food and fibre production; Food specialisations

Describe the ways food can be selected and prepared for healthy eating ([AC9TDE4K04](#))

Learning Trail Points Aligned: 1, 2, 8

Digital Technologies, Knowledge and understanding - Digital systems

Explore and describe a range of digital systems and their peripherals for a variety of purposes ([AC9TDI4K01](#))

Learning Trail Points Aligned: 3, 4

Digital Technologies, Knowledge and understanding - Digital systems

Explore transmitting different types of data between digital systems ([AC9TDI4K02](#))

Learning Trail Points Aligned: 3

Digital Technologies, Knowledge and understanding - Data representation

Recognise different types of data and explore how the same data can be represented differently depending on the purpose ([AC9TDI4K03](#))

Learning Trail Points Aligned: 3



Year 4

HASS, Knowledge and understanding - Geography

The importance of environments, including natural vegetation and water sources, to people and animals in Australia and on another continent ([AC9HS4K05](#))

Learning Trail Points Aligned: 1, 2, 3, 4, 5, 6, 7, 8

HASS, Knowledge and understanding - Geography

Sustainable use and management of renewable and non-renewable resources, including the custodial responsibility First Nations Australians have for Country/Place ([AC9HS4K06](#))

Learning Trail Points Aligned: 1, 2, 3, 4, 5, 6, 7, 8

Science, Science understanding - Biological sciences

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

Learning Trail Points Aligned: 1, 5, 6, 7, 8

Science, Science understanding, Earth and space sciences

Identify sources of water and describe key processes in the water cycle, including movement of water through the sky, landscape and ocean; precipitation; evaporation; and condensation ([AC9S4U02](#))

Learning Trail Points Aligned: 2, 4

Science, Science understanding - Chemical sciences

Examine the properties of natural and made materials including fibres, metals, glass and plastics and consider how these properties influence their use ([AC9S4U04](#))

Learning Trail Points Aligned: 4, 5

Science, Science as a human endeavour - Nature and development of science

Examine how people use data to develop scientific explanations ([AC9S4H01](#))

Learning Trail Points Aligned: 3

Science, Science as a human endeavour - Use and influence of science

Consider how people use scientific explanations to meet a need or solve a problem ([AC9S4H02](#))

Learning Trail Points Aligned: 3



Year 5

HASS, Knowledge and understanding - Geography

The management of Australian environments, including managing severe weather events such as bushfires, floods, droughts or cyclones, and their consequences ([AC9HS5K05](#))

Learning Trail Points Aligned: 3

HASS, Knowledge and understanding - Economics and Business

Types of resources, including natural, human and capital, and how they satisfy needs and wants ([AC9HS5K08](#))

Learning Trail Points Aligned: 1, 2, 3, 4, 5, 6, 7, 8

Science, Science understanding - Biological sciences

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

Learning Trail Points Aligned: 1, 2, 3, 4, 5, 6, 7, 8

Science, Science understanding - Earth and space sciences

Describe how weathering, erosion, transportation and deposition cause slow or rapid change to Earth's surface ([AC9S5H02](#))

Learning Trail Points Aligned: 3

Science, Science as a human endeavour - Use and influence of science

Investigate how scientific knowledge is used by individuals and communities to identify problems, consider responses and make decisions ([AC9S5U03](#))

Learning Trail Points Aligned: 3



Year 5 and 6

Design and Technologies, Knowledge and understanding - Technologies and society

Explain how people in design and technologies occupations consider competing factors including sustainability in the design of products, services and environments ([AC9TDE6K01](#))

Learning Trail Points Aligned: 1, 2, 3, 4, 5, 6, 7, 8

Design and Technologies, Knowledge and understanding - Technologies context: Engineering principles and systems

Explain how electrical energy can be transformed into movement, sound or light in a product or system ([AC9TDE6K02](#))

Learning Trail Points Aligned: 3

Design and Technologies, Knowledge and understanding - Technologies context: Food and fibre production; Food specialisations

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

Learning Trail Points Aligned: 1, 2, 3, 4, 5, 6, 8

Design and Technologies, Knowledge and understanding - Technologies context: Food and fibre production; Food specialisations

Explain how the characteristics of foods influence selection and preparation for healthy eating ([AC9TDE6K04](#))

Learning Trail Points Aligned: 1, 2

Digital Technologies, Knowledge and understanding - Digital systems

Investigate the main internal components of common digital systems and their function ([AC9TDI6K01](#))

Learning Trail Points Aligned: 3

Digital Technologies, Knowledge and understanding - Digital systems

Examine how digital systems form networks to transmit data ([AC9TDI6K02](#))

Learning Trail Points Aligned: 3

Digital Technologies, Knowledge and understanding - Data representation

Explain how digital systems represent all data using numbers ([AC9TDI6K03](#))

Learning Trail Points Aligned: 3



Year 5 and 6

Digital Technologies, Knowledge and understanding - Data representation

Explore how data can be represented by off and on states (zeros and ones in binary)

([AC9TDI6K04](#))

Learning Trail Points Aligned: 3



Year 6

HASS, Knowledge and understanding - Economics and Business

Influences on consumer choices and strategies that can be used to help make informed personal consumer and financial choices ([AC9HS6K08](#))

Learning Trail Points Aligned: 1, 2, 4, 8, 5, 7, 8

Science, Science understanding - Biological sciences

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

Learning Trail Points Aligned: 1, 2, 3, 4, 5, 6, 7, 8

Science, Science understanding - Chemical sciences

Compare reversible changes, including dissolving and changes of state, and irreversible changes, including cooking and rusting that produce new substances ([AC9S6U04](#))

Learning Trail Points Aligned: 8

Science, Science as a human endeavour - Use and influence of science

Investigate how scientific knowledge is used by individuals and communities to identify problems, consider responses and make decisions ([AC9S6H02](#))

Learning Trail Points Aligned: 3



Harvest to Home - A Grain Story

An educational journey following grains from farm to table through four interactive activities. Enjoy a hands-on experience with grains from milling the product and sifting the flour to kneading dough and molding bread or cutting cookies.

Daily 9am-7pm, Ag Education Hall



Youth in Agriculture Display

These produce exhibits play an important role in connecting students and agricultural producers.

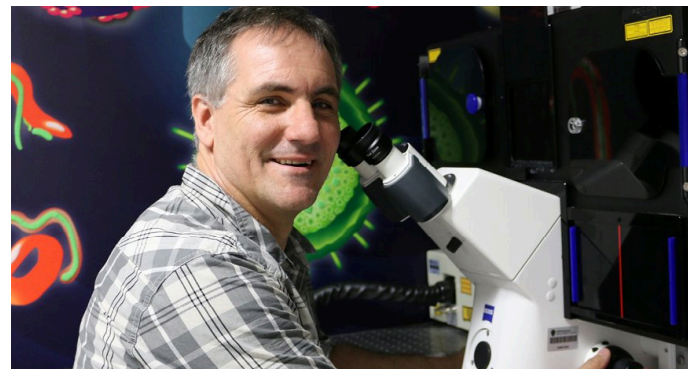
Daily 9am-7pm, Ag Education Hall



Get Kids Cooking! *presented by Australian Eggs*

In this hands-on cooking class, they'll roll up their sleeves and don an apron as they measure, grate and chop, before enjoying their healthy egg-based creation.

Daily 9am-7pm, Ag Education Hall



QIMR Berghofer

The QIMR Berghofer presents 'The Scientist's Kitchen' – a look at the science behind the food we eat, and how nutrition affects our health and wellbeing.

For more student online resources for students from QIMR, click the link...

<https://www.qimrberghofer.edu.au/education/for-teachers/>

Daily 9am-7pm, Ag Education Hall



Precision Reptiles - Reptile Show

At Precision Reptiles - Reptile Display We have a range of Australian reptiles to come along and learn about. From gentle Snakes, Lizards and even a baby Saltwater Crocodile which you can hold and get up nice close with in our non-venomous photo booth, to the worlds most venomous snakes in our snake pit where you will also learn some vital information about snake awareness and snake bite first aid.

Daily 9:30am - 4:45pm, King Street



Cradle-A-Chick

Cradle-a-Chick is an activity worth chirping about. Visitors can cradle the tiny chicks in the palm of their hand and even watch on as they hatch from their shells in a special incubator. All members of the family will enjoy watching the antics of the chicks, while learning how to care for them.

Daily 9:30am - 4pm, Large Animal Pavilion GF



Natural Fibres Fashion Parades Presented by Channel 7

Step in to our Enchanted Garden, where beauty abounds and fibre to fashion stories are told. This year's Ekka Natural Fibre Fashion Parades feature a stunning array of Brisbane and Queensland fashion, inspired by the threads of nature. From beautiful wool to Queensland cotton, sumptuous silk and the bloom of a delicate flax flower that yields the linen we see and wear every day, the parades are a celebration of design and industry. Fourteen Queensland designers are featured, including regional labels from Noosa, the Gold Coast, Goondiwindi and Markonvake Station, plus student designs from TAFE Qld, Billy Blue College of Design at Torrens University, and QUT. Twelve of the 14 designers are showing for the first time on the Ekka runway. Audiences can expect to see an array of interpretations on the natural fibre theme, floral inspiration throughout the collections, and a riot of tropical colour.

Daily 11:30am, 12:30pm, 1:30pm, Main Stage



Education on Show

Education on Show is a competition devoted to showcasing work by Queensland students from Prep to Grade 6. In 2024, the Education on Show competition will embrace the theme 'Our Farmers - Our Future'.

Daily 9am - 7pm, Ag Education Hall



Horticultural Displays

School competitors in School Garden, School Scarecrow and Little Sprouts supported by Brunnings will be on display in the Ag Education Hall.

Daily 9am - 7pm, Ag Education Hall

Raising Hy-Line Hens

This competition allows students to gain insight into the life cycle of chickens by raising their own laying hens. The hens will be on display throughout Ekka in the Large Animal Pavilion.

Daily 9am - 6pm, Large Animal Pavilion GF



Student Photography

The Student class of the Photography competition encourages emerging artists to showcase their budding talents, recognising and rewarding the next generation of passionate photographers.

9am-7pm, Channel 7 Pavilion



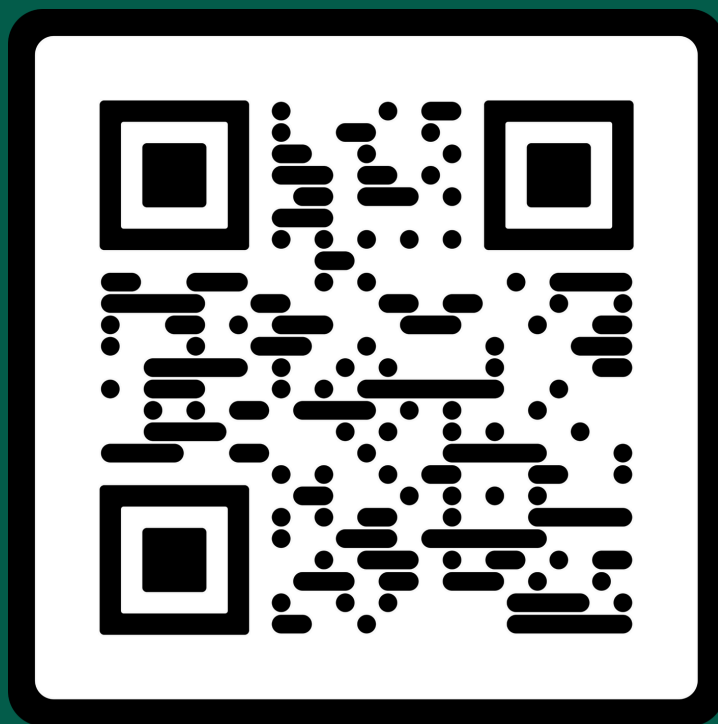
Bush Poetry

Watch passionate poets recite established bush ballads and their original work on our Sheep Shearing Stage.

Daily (except Sundays) 11:30am, 12:30pm, Sushi Hub Cat Precinct

Ekka

EDUCATION



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