

Mixed Farm Study – Years 3 - 4

Learners will **experience** the Hagley farm and discuss the meaning of a mixed farm. A variety of farm animals will be **observed** both on a farm **walk** and on a **Hagley tractor ride**. The cropping enterprises at Hagley will be **observed and discussed** and infrastructure, technology and machinery **examined**. The economics and ethics of operating a mixed farm will be **considered**.

ACHIEVEMENT STANDARDS

Design and Technologies

Food and Fibre Production

Students describe how social, technical and sustainability factors influence the design of solutions to meet present and future needs. They describe features of technologies that influence design decisions and how a range of digital systems can be used.

Science

Students group living things based on observable features and distinguish them from non-living things.

(Year 3)

Students describe relationships that assist the survival of living things and sequence key stages in the life cycle of a plant or animal. **(Year 4)**

CONTENT DESCRIPTORS

Design and Technologies

Food and Fibre Production

Investigate food and fibre production and food technologies used in modern and traditional societies. [\(ACTDEK012\)](#)

Science

Living things can be grouped on the basis of observable features and can be distinguished from non-living things. [\(ACSSU044\)](#) **(Year 3)**

Living things have life cycles. [\(ACSSU072\)](#) **(Year 4)**

Natural and processed materials have a range of physical properties that can influence their use. [\(ACSSU074\)](#)

(Year 4)

GENERAL CAPABILITIES

Numeracy

Using Measurement

Estimate and measure with metric units

Level 3 - estimate, measure and compare the length, temperature, volume, capacity and mass of everyday objects using metric units and scaled instruments.

Ethical Understanding

Explore ethical concepts in context

Animal welfare and management

Level 3 - discuss actions taken in a range of contexts that include an ethical dimension.

CROSS CURRICULUM PRIORITY

Sustainability

Organising idea 1

The biosphere is a dynamic system providing conditions that sustain life on Earth.

Organising idea 7

Actions for a more sustainable future reflect values of care, respect and responsibility, and require us to explore and understand environments.



Learning Goals

Learners will:

- Know that mixed farms have a variety of animals and/or crops.
- Understand that the farm has to be managed appropriately on a seasonal basis to ensure that animal needs and crop requirements are met.
- Illustrate the importance of farms in producing food and fibre.

Activating and Engaging

Suggested pre-experience learning

As a class group, in pairs or in small groups, learners use a KWL chart to record ideas to questions posed by the teacher.

Suggested tuning in questions:

- What do farms produce?
- How do farms make money?
- What do farmers need to buy?
- How does a farmer look after animals and crops?

Learners watch short video clips:

Learn about wheat farming

<https://education.abc.net.au/home#!/media/3374690/learn-about-wheat-farming-with-george-the-farmer>

(ABC Education 2019)

Running a dairy farm

<https://www.dairy.edu.au/resources/video-resource/running-a-dairy-farm-chapter-8>

(Discover Dairy 2019)

Exploring and Discovering

The Experience at Hagley Farm

Learners are invited to explain the term 'mixed farm' using the tuning in questions as a starting point.

VC teachers will lead a discussion to determine the types of animals and crops that may be farmed at Hagley on a commercial basis. This discussion will also include some thinking about the types of expenses the farm might incur as part of its commercial operation.

A farm walk and/or tractor ride will be undertaken in order to identify the Hagley animals and crops, infrastructure and technology.

The seasonality of farming and the ongoing work of the farmer to ensure care of animals and growth of crops and pasture will be discussed.

Learners will be engaged in discussion and observation of the technological changes to farming over time.

A variety of animals will be observed and fed, and their needs identified.

The farm production of food and fibre used in everyday life (paddock to plate) will be discussed.

Supporting Experiences

Dairy Demonstration Shed

Learners will experience how cows produce milk. They will learn about dairy cows, their life cycle and the importance of providing for their needs within a managed environment.

Shearing Demonstration Shed

Learners will learn where wool comes from. They will learn how sheep are penned, treated and shorn. They will take part in a range of sensory experiences including feeling wool.



Synthesising and Applying

Suggested post-Hagley experience

- Learners could devise a list of animal care jobs which would assist in maintaining their health and safety.
- Learners could list ways in which farms can make money and what farms need to spend money on.
- Learners could construct or draw an example of a mixed farm with appropriate infrastructure.

- Learners could identify farming activities undertaken on a seasonal basis.
- Learners could watch the Learn about Wool videos. (AWI 2020)

The needs of sheep

<https://www.learnaboutwool.com/resource-library/>

Success Criteria

Learners will be able to

- Explain what is meant by the term 'mixed farm'
- Illustrate one example of a paddock to plate
- Describe the activities involved in managing a farm on a seasonal basis.

Resources

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

Glossary

Bale – a large wrapped or bound bundle of paper, hay, silage, wool or cotton.

Barn - a large farm building used for storing grain, hay, or straw or for housing livestock

Crop - a cultivated plant that is grown on a large scale commercially, especially a cereal, fruit, or vegetable

Dairy - a building for the milking of cows or other mammals and temporary storage of milk

Dam - an artificial pond or reservoir where rain or spring water is collected for storage

Drenching – administer medicine to sheep or other animal

Expenditure - an amount of money spent

Fence - a barrier, railing, or other upright structure, typically of wood or wire, enclosing an area of ground to prevent or control access or escape

Fibre – a thread from which a textile is formed

Fleece - the coat of wool covering a wool-bearing animal (such as a sheep) or the wool obtained from a sheep at one shearing

Harvest - the process or period of gathering in crops

Harvester - a person or machine that gathers crops as a harvest

Hay - grass that has been mown and dried for use as fodder

Income - money received for work, goods or investments

Infrastructure - the basic physical and organizational structures and facilities (e.g. buildings, roads, power supplies)

Irrigation - the supply of water to land or crops to help growth

Irrigator – machine used to spread water



Lanolin – a fatty substance found naturally in sheep's wool. Used as a base for many creams and ointments

Marking – process of immunising, tagging, tailing and, if necessary, castrating

Plough - a large farming implement with one or more blades fixed in a frame, drawn over soil to turn it over and cut furrows in preparation for the planting of seeds

Race – a single-file walkway for animals

Shearing shed - a building in which sheep are shorn and the wool is classed and packed

Shears – a cutting instrument with two blades which pass by each other. Like scissors but larger

Shelter - a place giving temporary protection from bad weather or danger

Shelter belt - a line of trees or shrubs planted to protect an area

Silage - grass or other green fodder compacted and stored in airtight conditions, without first being dried, to be used as animal feed

Spinning – process of intertwining woollen fibres to make thread or fabric

Tractor - a powerful machine with large rear wheels, used chiefly on farms for hauling equipment

Veterinarian - a person qualified to treat diseased or injured animals

Water trough – an open container for animals to drink out of

Yards – an enclosure where farm animals are held in order to organise them for sorting, transport, veterinary help etc.