



Stage 5 Agriculture Technology: Year 9

Unit B: Egg production

Rationale for the development of this unit of work

In the Technology (Mandatory) course, students at Richmond High all brood a chicken, this activity has introduced them to poultry production and the early development of chickens.

This unit of work is designed to develop students from the point achieved in the mandatory course and build to an understanding of the issues and techniques in the egg production industry.

Students may wish to keep poultry for home egg production or for showing, and the skills necessary for this will also be addressed within the context of commercial egg production.

The major concepts and outcomes addressed are listed below.

Syllabus requirements	Key concepts	Outcomes
Intensive animal enterprise	Animal husbandry skills Breeds Cross breeding Ethics and welfare Diets Monogastric digestive system Reproduction and reproductive system Pests and diseases Chicken development including embryology	5.1.1 5.3.1 5.3.4 5.4.2 5.4.3

Concepts	Resources
Breeds and breed development <ul style="list-style-type: none"> Recognise the terms that are used in poultry production. 	<i>Enterprising Agriculture</i> , p. 240 <i>Dynamic Agriculture Blackline Masters Book 1</i> , 1.3
<ul style="list-style-type: none"> Identify on a live chicken the parts of a fowl and record these on a diagram. 	<i>Enterprising Agriculture</i> , p. 233 <i>Dynamic Agriculture Blackline Masters Book 1</i> , 1.1, 1.2 <i>Dynamic Agriculture 1</i> , p. 227
<ul style="list-style-type: none"> From a breed book, textbook or web site, list the breeds of chickens and collect information on their production and morphological features. 	www.ansi.okstate.edu/poultry www.albc-usa.org/wtchlist.htm#poultry
<ul style="list-style-type: none"> Organise data on chicken breeds into different groups based on their production characteristics and morphology. Infer from this data those breeds that would be best suited to egg production in a home or commercial setting. 	<i>Enterprising Agriculture</i> , p. 238 <i>Agriculture and You 1</i> , p. 43
Feeding chickens <ul style="list-style-type: none"> Recognise on a diagram the parts of the digestive system of a chicken. Identify and outline the functions of the parts of a chicken's digestive system. 	<i>Enterprising Agriculture</i> , p. 234 <i>Agriculture and You 1</i> , p. 51 <i>Dynamic Agriculture Blackline Masters Book 2</i> , 6.1
<ul style="list-style-type: none"> Contrast nutritional requirements of chickens during different stages of growth and production. Design a feeding program for the production cycle of a laying hen from hatching through to production. 	<i>Enterprising Agriculture</i> , p. 264 <i>Agriculture and You 1</i> , p. 52
Breeding chickens <ul style="list-style-type: none"> Make a flow chart to show the hybrid breeding system used to produce hybrid laying hens, and understand the terms hybrid, inbred and hybrid vigour. 	<i>Dynamic Agriculture 1</i> , p. 228 <i>Agriculture and You 1</i> , p. 62
<ul style="list-style-type: none"> Identify the parts of the reproductive system of a hen. Compare the functions of the parts of the reproductive system with the time of passage for a forming egg. 	<i>Agriculture and You 1</i> , p. 59
<ul style="list-style-type: none"> Collect fertile eggs and incubate them. Identify the conditions necessary for the successful incubation of chickens. 	<i>Enterprising Agriculture</i> , p. 255
<ul style="list-style-type: none"> Use the embryo samples to identify the stage of development of the chickens in the eggs. 	<i>Agriculture and You 1</i> , p. 48



Concepts	Resources
Keeping chickens for eggs <ul style="list-style-type: none">Identify patterns of egg production for hens at school, and suggest reasons for this pattern (clutch length, day length).Devise a way of improving egg production by manipulating lighting.	<i>Agriculture and You 1</i> , p. 59–60
<ul style="list-style-type: none">Examine eggs from different sources (supermarket, home and school) and identify measurements of egg quality.	<i>Agriculture and You 1</i> , p. 61
<ul style="list-style-type: none">Investigate the effect of environmental temperature on the production of eggs, and devise ways this can be alleviated.	<i>Agriculture and You 1</i> , p. 44
<ul style="list-style-type: none">Investigate the social order of chickens on the school farm, and the effect this has on obtaining access to resources such as feed and water.Evaluate techniques such as de-beaking and battery cages for control of the effects of pecking order.Research the issues involved in the choice of production system for egg production, (free range, cages) and use this information to participate in a debate on the merits of caged egg production.Make a poster promoting free range eggs.	<i>The Australian model code of practice for the welfare of animals: domestic poultry</i> , 4 th edition
Looking after chickens: health, diseases, handling, washing, showing and catching <ul style="list-style-type: none">Keep chicken pens clean and feeders and water clean and full when rostered time occurs.	
<ul style="list-style-type: none">Research the common parasites of chickens and the methods of control.Treat a chicken for external parasites using the correct and safe method.Calculate the dosage and application method for internal parasite control.	<i>Enterprising Agriculture</i> , p. 266 <i>Agriculture and You 1</i> , p. 62 <i>Dynamic Agriculture Blackline Masters Book 1</i> , 1.8, 1.9
<ul style="list-style-type: none">Make a catching hook, and use the correct method to catch and hold a chicken.Working in pairs, wash, dry and prepare a chicken for a show.	<i>Enterprising Agriculture</i> , p. 260



Assessment

There are nine assessment tasks listed below for this unit. They consist of tasks that are assignments, practical reports, skills and formal tests. The mark grid below gives an indication of the value of each task and how it will contribute to the overall assessment of the students for each outcome.

Tasks

- Prac on social stress in chickens, including design of the investigation and presentation of results.
- Collect fertile eggs and incubate them.
- Clean, feed and water chickens using a roster.
- Treat a chicken for external parasites.
- Make and use a catching hook.
- Wash, dry and prepare a chicken for a show.
- Debate on free-range versus caged (either as debater or as part of a brains trust).
- Make a poster promoting free-range eggs.
- Topic test.

Tasks contributing to semester report	5.1.1	5.3.1	5.3.4	5.4.2	5.4.3	5.6.1	5.6.2
Prac on social stress in chickens.					□		
Collect fertile eggs and incubate them.		□					□
Clean, feed and water chickens on roster.							□
Treat a chicken for external parasites.			□			□	□
Make and use a catching hook.							□
Preparation of a chicken for a show.							□
Debate on free-range v caged		□			□		
Poster promoting free-range eggs					□		
Topic test	□		□	□	□		