Year 7

HISTORY RESOURCE

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Agriculture in Education: an educational resource for the Year 7 History Curriculum

The development of farming in Ancient Societies and the Technologies used in Food and Fibre Production

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AGRIFOOD SKILLS AUSTRALIA

The Ancient World – the period from approximately 60,000 BC (BCE) –c.650 AD (CE).

It is a period defined by the development of cultural practices and organised societies. The changes in agricultural practices had a significant impact on the way in which the societies were to change during this period.

This resource has been developed with the aim of providing an overview for the period, within the context of agriculture and "technological changes" that supported the shift from nomadic life to organised societies.

It also provides students with the opportunity to 'practice' history skills.

Resource: The development of farming in Ancient Societies and the Technologies used in Food and Fibre Production

	Content Descriptor:	
Year 7 History Skills	Sequence historical events, developments and periods	ACHHS205
Year 7 Historical knowledge and understanding	Key features of ancient societies (farming, trade, social classes, religion, rule of law)	ACOKFH003

Source: Australian Curriculum, Assessment and Reporting Authority (ACARA), downloaded from the Australian Curriculum website on 15th December 2014.

This resource includes a:

A. Teacher Guide with activities and tasks
B. Technology Cards: Timeline of Technology used in Agriculture (Powerpoint)
   Technology Cards: Timeline of Technology used in Agriculture (Word version)
C. Glossary
D. Source Materials
   – Settling in Villages

learn

Learning Outcome/s

Students will gain an understanding of the contribution of farming in the move from a nomadic lifestyle to permanent settlements, and the role technology played in influencing this change.

They will be able to place in chronological order the changing farming practices that occurred over time both in Ancient Societies and in Australia.

Description

This resource aims to engage students in understanding the changes that have occurred in agriculture by discussing what they already may know about the role of technology in affecting change in agricultural practice.

Students will explore how farming was a key feature in ancient societies and led to the shift from a nomadic lifestyle to permanent settlements and that changes in farming practices facilitated this change.

Students will consider Mesopotamia, as the site of the first cities that is they explore the role of agriculture in the process of urbanisation.

discuss

Setting the scene

Begin by getting students to think about the concept of technology and "ancient times"

Discussion points:

1. What do students think "ancient times" means?
2. What is technology?
3. Is technology used on farms? How?

discuss

4. List some of the tools and equipment used on farms.
5. Do the students think that the tools and equipment used on farms have changed since ancient times? How? Why?
6. And what affect do they think these changes may have had, for example increased ability to grow more food and feed more people.

Discuss with students the technology used in agriculture and how people use technology to produce, process and market food.

Ask students if they can recall some of the machines and tools in agriculture – tractors, harvesters, water pumps, hoe, computers – and if they know what they are used for.

To assist the students you could show them the images in the Powerpoint: Technology Cards: Timeline of Technology used in Agriculture.

- When people first started farming, they did all the work by hand.
- Discuss with students what this might have been like.
- Ask them if they have planted a garden? Imagine doing this all day every day.
- What tools would you invent to make planting and tending a garden easier?

Activity One: Investigating technology in the "Ancient World"

Students will consider the development of farming in "ancient times" by investigating the move from a nomadic lifestyle to learning to farm and settling in permanent settlements.

discuss

Setting the scene

Firstly have the students consider:

- thinking about a nomadic or a hunter and gatherer lifestyle(these people forage and hunt for food). Have students describe what life might be like if they were a hunter gather and what "technology" they would need to make sure they could undertake their activities such as finding food;
- what information/evidence might lead you to decide that people are no longer nomadic? What clues might you look for? That is people are no longer moving from one place to another. What "technology" might have been used to help people live in one spot (there are "permanent" houses, evidence of food being grown, the landscape might change as people start to build structures for example dams).

Share with students the following:

Did you know that through using primary sources, that is a document like a diary, paintings or a physical object such as stone tools, that was written or created at a particular time we can gain an understanding of what might have happened at a place in time.

It is thought that Aboriginal and Torres Strait Islander (First Nations people) didn't farm the land however this may no longer be correct. For example by reading the diaries/journals, that is primary sources, of Australian explorers the historian Bruce Pascoe suggests that Australia's First Nations people may have been more than hunters and gathers. The journals and diaries suggest that First Nations people may have built dams and wells, planted, irrigated and harvested seeds – none of which fits the definition of a nomadic lifestyle. [1]

Student focussed discussion

movie

Show students:

First Australians were also the first farmers - History (6) - ABC Splash (3mins 27 secs)

http://splash.abc.net.au/home#!/media/29898/indigenous-eel-farming?source=search

and talk about – these 3 points that come directly from "Things to think about" in the video[2]:

1 Brian Pascoe, Dark Emu Black Seeds: agriculture or accident, Magabala Books, 2014 page 12
2 First Australians were also the first farmers- Science (6) Splash ABC http://splash.abc.net.au/home#!/media/29898/indigenous-eel-farming?source=search

1. Now imagine if an ancient indigenous community was farming eels thousands of years ago. What evidence might you look for in the landscape?
2. How was computer technology used to help Dr Bluith solve the mystery of Lake Condah?
3. How did the results of Dr Bluith's research provide evidence that the Gunditjmara community may have developed farms?

Can you think of any other examples, besides fish traps?

1. Is this farming as Europeans understood it to be?
2. What is farming? Why do you think farming might have created a sense of "permanency" for people in more ancient times?
3. Capture your thoughts in notes under the heading:
   Did our First Nations people farm? And what "technology" might they have used that supports the idea that they may have farmed (for example fish traps, digging sticks and so forth)

work task

Work Task One

Students are to prepare a summary of what they have learnt about the lifestyle, "technologies" and possible differences of those people that participated in "nomadic" activity and "farming" activity.

Student focussed activity

- Summarise what you have learnt so far about the lifestyle, "technologies" and the possible differences if you were a hunter and gatherer (nomad) or if you were a "farmer" in ancient times.

Students should consider that the "technologies" used by hunters and gathers had to be simple and easy to transport for example spears, while farming required the use of digging sticks, implements for grinding grain etcetera.

Now have students consider secondary sources, that is documents written after an event has occurred, providing "secondhand" accounts of that event, person, or topic. Unlike primary sources, which provide first-hand accounts, secondary sources offer different perspectives, analysis, and conclusions of those accounts. [3]

Ask students what examples of secondary sources they can think of?

Activity Two: Life in Ancient Mesopotamia

Explain to students they are going to use secondary sources to explore Life in Ancient Mesopotamia. They will have a chance to consider how agricultural changes supported a move people settling in villages.

Begin by providing students with a printed copy of Source One – Settling in Villages.

discuss

Student focussed activity

1. You are going to read Source One – Settling in Villages
2. You will make notes identifying the steps and changes that took place that saw people 'settling in villages'. Keep your notes short and easy to read.
3. Think about what the two great steps were "along the path to civilisation" - what had people learned to do and then what were the other "greater steps" that meant people could stay in one place.

Use Think, Pair, Square strategy for students to discuss and compare their findings (notes) that is two minutes personal reflection about what they have written; three minutes to explain their ideas to a partner and vice versa; and finally five minutes for pairs to join with another pair and share their combined ideas. Brief responses from groups can then be taken as a whole class.

Or have students undertake Work Task Two: Agriculture in Ancient Societies

3 www.library.illinois.edu › Library › Undergraduate Library

work task

movie

Work Task Two: Agriculture in Ancient Societies

Provide students with the following instructions:

After reading the passage in Source One and/or viewing

Mesopotamia From Nomads to Farmers (Discovery Education)

https://www.youtube.com/watch?v=Ki8S5I83Ccc

Make observations about these key ideas and be prepared to record some explanations and share them with the class:

- domestication of plants and animals
- inventions – tools and equipment
- permanent settlement

Place your key ideas and explanations into a mind map or Prezi. http://prezi.com/

Here is an example of a Prezi that has been created on this topic that may help.
https://prezi.com/wcle2ziikkfa/mesopotamian-farmers-2/

work task

Activity Three: Agricultural Changes in Australia

Have students consider the "Technology Cards" in terms of the sequence of historical information that identifies changes in technology used in agriculture.

Materials required

A set of photographs of agricultural technology (Technology Cards) are supplied and could be printed and laminated.

OR

Student focussed activity

Students could research and source their own images, in pairs or groups, that show the changes in agricultural technologies and put them in chronological order for example they may find spears, fish traps, hoes and fish enclosures found in fish farms today etcetera.

Technology Cards

If using the Technology Cards, discuss with the class the images that are depicted on the cards. Students will view these pictures showing technology used in agriculture (farming technology cards) – from spears to GPS satellite and have students working in groups put the cards into "chronological order" from past to present (or sequence of events).

OR

You could have:

- Select students (or representative from each group) to line up at the front of the class.
- Give each student a farming technology card – from spears, to drones.
- The class then directs the students to move into chronological order of when the technology was/is used and explains the positioning

work task

assess

Work Task Three: Timeline of Technology Used in Agriculture

Assessment Opportunity

Student focussed activity

Give these instructions to students:

Select six or more of the tools and equipment from the photographs, or have students use the images they have sourced and conduct research on:

- When were the tools/equipment invented?
- Write/record the events in chronological order and then construct a timeline using these events. This can be done electronically using http://www.readwritethink.org/files/resources/interactives/timeline_2/ or http://www.tiki-toki.com/ or another program or app.

Outcome: Students should be able to demonstrate their ability to put the events in sequence.

work task

Extension Activity: Peer teaching/Learning

Place students into groups of four.

In these groups, students will select one or more of the topics below and gather the information they have learned about:

- The contribution of farming in the move from a nomadic lifestyle to permanent settlements.
- The range of technologies - tools and equipment, used in agriculture and when they were invented.
- Explain how and why the technology used has changed over time.

To assist students to share the information with others in the class, follow these steps:

Student information

1. Spend some time assembling all the information you have gathered. You need to be able describe what you have discovered. Take turns explaining what you have learned to the rest of the group.
2. Next, evaluate what gaps in knowledge and understanding you have. Do you need to conduct further research? Write some research questions.
3. How does what you have learned help you to understand the topic.
4. Prepare to present your findings to the rest of the class. This could be done using ICT (e.g. PowerPoint) so that you can present pictures and maps to help you explain your ideas.

Year 7 Achievement Standard

By the end of Year 7, students suggest reasons for change and continuity over time.

Students sequence events and developments within a chronological framework, using dating conventions to represent and measure time.

Glossary

Technology: is the practical application of science. It involves the use of tools and machines, materials, techniques and power sources to make people's lives easier and more productive.

Innovation: The act or process of inventing or introducing something new that can be applied to meet new requirements and/or to solve existing problems.

Nomadic: A member of a group of people who have no fixed home and move according to the seasons from place to place in search of food, water, and grazing land.

Agriculture: the science, business and practice of farming, including cultivation of the soil for growing crops and rearing livestock to provide food, fibre and other products.

Domestication: to tame an animal to live with humans as a pet or work animal so that the animal usually loses its ability to live in the wild.

Firestick farming: the practice of indigenous Australians who regularly used fire to burn vegetation to make hunting easier and to encourage the growth of plant and animal foods.

GPS: Global Positioning System. GPS applications are used in precision farming for farm planning, field mapping, soil sampling and tractor guidance.

Pivot irrigation: also called circle irrigation, is a method of crop irrigation where the equipment rotates around a pivot and crops are watered with sprinklers.

Entomologist: is a person who studies insects and their relationship to humans, the environment and other organisms. Their studies assist in agriculture as they are the basis for developments in biological and chemical pest control.

Chemist: an agricultural chemist studies the science of chemical compositions and changes involved in the production, protection and use of crops and livestock to assist the processing of raw products into food and beverages. They also monitor the environment.

Geneticist: some geneticists are breeders who produce superior plants and animals through selective breeding.

Food Scientist: are concerned with what happens to agricultural products after they are grown or harvested and how they reach your dinner table.

Agronomist: also known as plant and soil scientists, use their knowledge and skills to improve and sustain crops like corn and wheat. They study the effects of soil health and the environment on plant growth and work out how to control pests and diseases.

work task

Source 1: Settling in villages

Humankind had taken two great steps along the path to civilisation. People in the Near East had learned how to grow crops and how to keep animals. The conditions were now right for an even greater step to be taken. Instead of living in temporary campsites, people began to build permanent places in which to live. These places were the world's first villages, the most ancient of which is 11,000 years old.

As people settled in villages, the population began to increase. New tools were invented to help farmers with their crops, such as sickles for reaping wheat and barley, and ploughs to till the fields. People discovered how to build ovens in which to bake bread and from this invention the idea of baking clay to make pottery was explored.

People learned how to extract linen from the flax plant. They spun flax and wool, weaving them into clothes, bedding and sails. They found out that beer could be made from barley, and wine from grapes. Since there was no longer any need for people to move from campsite to campsite as they had done before they lived in villages, they acquired more possessions such as furniture. The process of learning how to grow crops and raise animals is called domestication. Among the many different kinds of wild grass that grew in this area were einkorn and emmer wheat. They both have large seed heads, packed with good sized grains but they suffer from brittle ears that snapped easily and both shed their grains quickly. This made them bad for growing as a crop. But then an accident of nature happened – wild emmer wheat crossed with wild goat grass. The result, known as a hybrid, was a plant with tough ears that could hold on to its grains. When the people realised the advantages of the new plant, they chose it as their main crop. This is how wheat became domesticated.

At about the same time that the first farmers were domesticating plants, they were also taming wild animals. Young animals were taken from the wild and raised to guarantee supply of meat and milk. As they reproduced, their numbers increased. The farmers soon realised that large numbers of animals could be kept together in flocks or herds. Large, aggressive animals were killed before they could breed. By doing this over a long period of time, wild animals evolved into domesticated breeds which became more docile than their wild ancestors.

(J. Madden, Mesopotamia and the Near East, Evans Brothers, London, 1999)

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