PIEFA Food & Fibre
CARD GAME

INSTRUCTIONS

Awesome Alpacas

YEAR 5-10

PIEFA Food and Fibre Card Game
Australian Alpaca Association
Supply Chain

AUSTRALIAN CURRICULUM CONTENT

❯ YEAR 5-6

Explain how and why food and fibre are produced in managed environments (**AC9TDE6K03**)

Investigate needs or opportunities for designing, and the materials, components, tools, equipment and processes needed to create designed solutions (**AC9TDE6P01**)

Investigate how scientific knowledge is used by individuals and communities to identify problems, consider responses and make decisions (**AC9S5H02, AC9S6H02**)

Locate, collect and organise information and data from primary and secondary sources in a range of formats (**AC9HS5S02, AC9HS6S02**)

❯ YEAR 7-10

Analyse how people in design and technologies occupations consider ethical and sustainability factors to design and produce products, services and environments (**AC9TDE8K01**)

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

Analyse needs or opportunities for designing, and investigate and select materials, components, tools, equipment and processes to create designed solutions (**AC9TDE8P01**)

Generate, test, iterate and communicate design ideas, processes and solutions using technical terms and graphical representation techniques, including using digital tools (**AC9TDE8P02**)

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

Game Objectives

By participating in a hands-on card game, students will learn to sequence the process of converting fibre from alpacas on a farm into an end product suitable for sale. Additionally, they will gain an understanding of technologies and the careers involved in the supply chain.

The supply chain game cards can be printed from this document and can also be accessed in the following lessons:

> Year 5-6, Lesson 3
> Year 7-10, Lesson 3 and Lesson 4
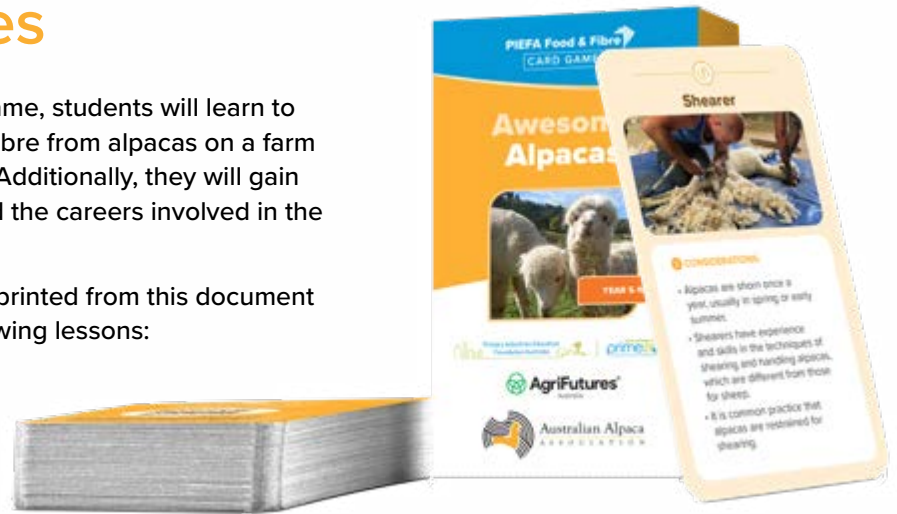
Resources and Equipment

PACK CONTENTS

> 48 game cards

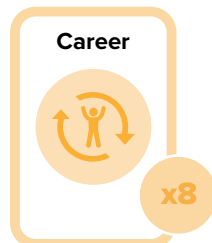| Arrow	Step	Career	Scan	Technology
x19	x15	x8	x2	x4
Arrow cards	**Step cards**	**Career cards**	**Scan cards**	**Technology cards**
19 x Arrow game cards	15 x Step game cards	7 x Career game cards and 1 x Career game card template	2 x QR Code game cards	1 x Technology game card and 3 x Technology game card templates
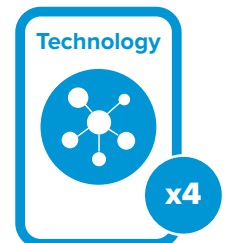
GAME 1 - THE SUPPLY CHAIN FLOWCHART

1. Approximately 2 - 4 players
2. Butchers paper and markers
3. Individual computer/digital device access
4. **Wool Production and Processing** (3:10)
5. **Why Alpaca is the Smart Future for Australia**
   (0:00-4:25 for year 5-6 and 0:00-7:07 for year 7-10)
6. PIEFA Food and Fibre Card Game | Australian Alpaca Association Supply Chain Game Cards (printed, cut into individual cards and preferably laminated)
7. Extension: **Australian Alpaca Association**
8. Extension: **Job Boards for Agriculture**

Objective

To create a flowchart of the alpaca supply chain in the correct order.

Game play

1. Players watch the video on sheep wool/fibre production and processing **Wool Production and Processing** (3:10).
2. During the video, players will create a flowchart on butchers paper, showing the journey of alpaca fibre from the farm to a high quality alpaca end product, such as a garment, blanket, accessory, etc.
3. Players will include the name of the step or process in the supply chain and use arrows between each step to show the path of the product.
4. Players place all the *step*, and *arrow* game cards face up and sort them into two piles:
   - *Step* game cards (🔼) and
   - *Arrow* game cards (🔽)
   - Remove and reserve the *career* (🧍) , *technology*, and *QR code* (🔍) game cards.
5. Players collaborate and organise the cards into a supply chain by placing the *step* game cards into their sequential order and arranging the *arrow* game cards between each step to create a supply chain flowchart.
6. Players check answers with their teacher.

This resource has been developed by:

Extension 1 - Careers

a) Players take the *career* cards from the reserved cards from step 4.

b) Using the completed flowchart, place the *career* game cards adjacent (next to) to the step they are associated with on the completed flowcharts.

c) Research careers that occur along the supply chain. Students may use the **Australian Alpaca Association website**, **Job Boards for Agriculture** or an internet search engine.

d) Design a card for another career related to the supply chain by filling in the provided areas of the blank template. Players can use the other *career* game cards as a model for their design.

e) Place the newly designed *career* card adjacent to the step associated with the career on the flowchart.

Extension 2 - Technology

a) Players take the *technology* card from the reserved cards in step 4. Using the completed flowchart, place the technology game card adjacent (next to) to the step they are associated with on the completed flowcharts.

b) Research a technology used in any part of the supply chain to improve productivity, speed up a job, produce higher quality fibre, etc.

c) Using the supplied *technology* cards as a model, design three or more *technology* cards using the templates and cut them out. Include a description of the technology, a picture, and an explanation of how the technology is advantageous on each card template.

d) Using the completed flowchart, place the newly designed *technology* game card adjacent (next to) to the step it is associated with on the supply chain

REFERENCES

Australian Alpaca Association. (n.d.a). *Home.* Australian Alpaca Association. https://alpaca.asn.au/

Australian Alpaca Organisation. (n.d.b). *Why Alpaca is the Smart Future for Australia.* www.youtube.com. Retrieved September 14, 2022, from https://www.youtube.com/watch?v=quXELeJI7bc

Career Harvest. (2022, May 3). *Job Boards for Agriculture | Agriculture Careers.* www.careerharvest.com.au. https://www.careerharvest.com.au/jobboards

IWTOCHANNEL. (n.d.). *Wool Production and Processing.* www.youtube.com. Retrieved November 23, 2022, from https://www.youtube.com/watch?v=ezcnihYoJ7E&t=189s

This resource has been developed by:

Awesome Alpacas

AgriFutures® Australia

Australian Alpaca ASSOCIATION

PIEFA Food & Fibre
CARD GAME

19 x Arrow game cards

Arrow

x19

15 x Step game cards

Farm

> **CONSIDERATIONS:**

Farms are areas of land used to raise plants and animals for food and fibre. Animals, such as alpacas, are cared for on a farm.

They are managed so that they are stress-free, protected from ... and have all of their

Step

x15
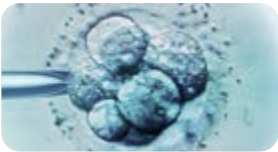
2 x QR Code game cards

Australian Alpaca ASSOCIATION

Scan the QR code to discover ... e Australian Alpaca ...on is helping to build ...sful and sustainable ...ndustry in Australia.

Scan

x2

4 x Technology game cards

Artificial Breeding

> **CONSIDERATIONS:**

Embryo transfer involves transferring a fertilised egg (ova) from a high quality female donor alpaca to a recipient female, who then gives birth and rears the cria.

This means that more offspring can be produced from the genetically superior mother.

Technology

x4

8 x Career game cards

Scientist

> **CONSIDERATIONS:**

Scientists research, gather and use evidence to make and test hypotheses to gain and share understanding and knowledge. An understanding of the science of fleece production can be applied to selective breeding programs, ...tock that produces ...ith higher quality, and ...able fleece.

Career

x8

This resource has been developed by:

Primary Industries Education Foundation Australia

www.primezone.edu.au
primezone
The place for all your food and fibre resources

AgriFutures® Australia

Australian Alpaca ASSOCIATION