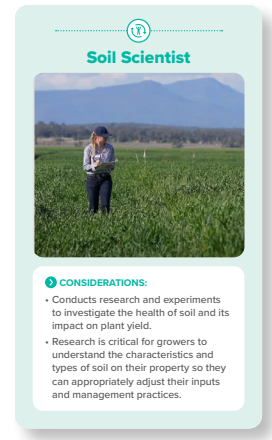


# Create a Question

- 1. Choose one career card from the GRDC Careers | PIEFA Food & Fibre Card Game.
- 2. Record five questions about this career in the Australian grains industry. For example, what tasks does a person with this career undertake? What qualifications are needed for this role? Etc.



Grain career 1: \_\_\_\_\_

Question 1: \_\_\_\_\_

---



---



---



---



---

Question 2: \_\_\_\_\_

---



---



---



---



---

Question 3: \_\_\_\_\_

---



---



---



---



---

This resource has been developed by:

Question 4: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Question 5: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

3. Choose another career card and use the following sites to research this career.

Grain career 2: \_\_\_\_\_

**GRDC Grains Industry Educational Resources**

[https://grdc.com.au/\\_\\_data/assets/pdf\\_file/0031/227569/grdc-fact-sheet-fa.pdf](https://grdc.com.au/__data/assets/pdf_file/0031/227569/grdc-fact-sheet-fa.pdf)

**Career Harvest- Careers In Grain**

<https://www.careerharvest.com.au/careers-in-grain>

4. Find a student who researched the career you wrote questions about in step 2.

Collaborate to record answers to these questions.

Record your responses below your questions.

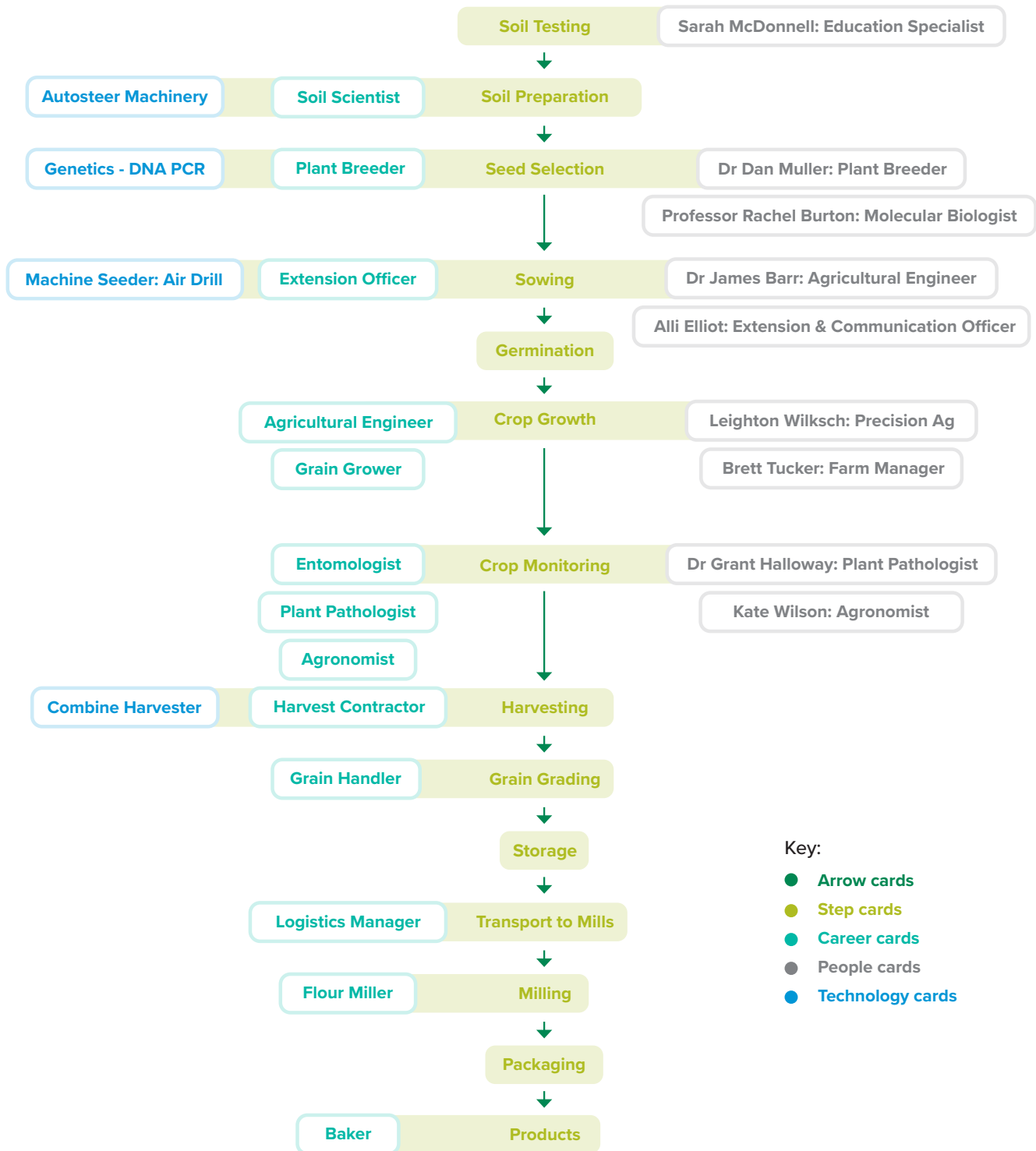
5. Repeat step 4 until all students have asked and recorded answers to their questions.

This resource has been developed by:

# The Australian Grain supply chain flowchart

Suggested answers for the GRDC Careers | PIEFA Food & Fibre Card Game

Note that some cards may be placed adjacent to more than one step.



This resource has been developed by:

## Create a Question

POSSIBLE RESPONSES:

**GRAIN CAREER: Agronomist**

**QUESTION 1: What does an Agronomist do in the grains industry?**

Agronomists advise producers on crop management in the grain industry, including planting, fertiliser application rates, pest control, and harvesting times. They help optimise crop yields, ensure grain quality, and promote sustainable farming practices.

**QUESTION 2: What qualifications and education are required to become an Agronomist in the grains industry?**

To become an Agronomist in the grain industry, you typically need at least a bachelor degree in agronomy and crop science or a related field. Some positions may require a masters degree for advanced research or management roles.

**QUESTION 3: What are the main challenges Agronomists face in the grains industry?**

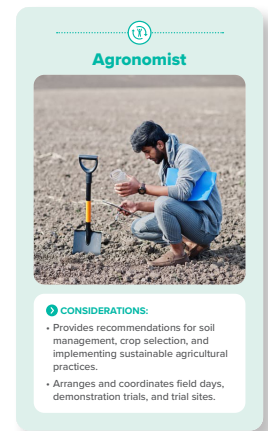
The challenges Agronomists face could be providing advice around adapting to changing climate conditions, addressing pest and disease management, optimising resource use (water, fertilisers), and adopting sustainable practices to ensure crop health and yield.

**QUESTION 4: How does technology impact the work of Agronomists in the grains industry?**

Technology plays a significant role in agronomy. Agronomists use tools like precision agriculture, GPS, drones, and remote sensing to collect data on crops and soil. This data helps make informed decisions and optimise farming practices for increased economic, environmental, and social returns.

**QUESTION 5: What is the career outlook for Agronomists in the grains industry?**

The career outlook for Agronomists in the grains industry is positive. With the growing need for sustainable and efficient agricultural practices, there is a demand for Agronomists to help producers achieve higher yields to supply a growing population and environmental goals to address current and future challenges. Job opportunities may vary by region and specialisation.



This resource has been developed by:

## Create a Question

POSSIBLE RESPONSES:

**GRAIN CAREER:** **Agricultural Engineer**

**QUESTION 1: Explain the role of an Agricultural Engineer in the grains industry.**

Agricultural Engineers are responsible for designing, developing, and implementing technologies and systems to enhance grain production. They work on optimising machinery, irrigation systems, and other technologies to improve efficiency and sustainability. This includes implementing precision farming technologies, creating systems for sustainable grain storage and transportation, and addressing challenges related to crop yield, climate change, and pest management.

**QUESTION 2: What training and education is required to become an Agricultural Engineer in the grain industry?**

To become an Agricultural Engineer in the grain industry, a person typically needs a bachelor degree in agricultural engineering or a related field. Some positions may require a masters or doctoral degree for more advanced research or leadership roles. The coursework might include agricultural machinery, crop production, irrigation systems, and sustainable agriculture. Practical experience through internships or research projects is valuable.

**QUESTION 3: What are Agricultural Engineers' main challenges in the grains industry?**

Challenges faced by Agricultural Engineers in the grain industry include creating solutions that are affordable to implement by producers to improve crop yield, adapting to the impact of climate change, developing technologies for efficient pest and disease management, and creating sustainable practices for grain storage and transportation. They also work on addressing issues related to resource efficiency, environmental impact, and integrating new technologies.

**QUESTION 4: Describe how technology impacts the work of Agricultural Engineers in the grains industry.**

Agricultural Engineers leverage advancements in precision agriculture, automation, and data analytics to optimise farming practices. This includes using drones and sensors for crop monitoring, implementing automated machinery for planting and harvesting, and developing smart storage systems. These technologies enhance efficiency, reduce resource use, and promote sustainable farming practices.

**QUESTION 5: Explain the career outlook for Agricultural Engineers in the grains industry.**

With the increasing emphasis on sustainable agriculture and integrating technology and data, there is a growing demand for professionals with expertise in Agricultural Engineering. Career opportunities exist in research institutions, government agencies, agribusinesses, and consulting firms. The need for innovative solutions to address challenges in grain production, such as the need to help feed a growing world population and increase the productivity of available land, ensures a positive outlook for those involved in the industry.

This resource has been developed by:

