



Practical Project Ideas

All Industries

Year 7

Stage 4



These idea starters may lead to a practical project in Agriculture or add to an existing project. Use the lesson plan references on page 2 to find lessons that will introduce and start to unpack some of these ideas.

Our Year 7 Practical Project Ideas can be developed together with the Year 8, Year 9 and Year 10 practicals to create and build a complete food or fibre business model at your school.



Best sustainable farming methods for your farm

- CONSIDER food security, biosecurity, animal welfare, energy consumption, greenhouse gas emissions and vegetation and soil management.
- EXPLORE implications in efficiency, production systems, cost of production and retail price.
- What actions need to be taken initially? List the challenges that are likely to crop up along the way. What will you do to mitigate these risks? Select and trial one or more components of your plan.

Water source and irrigation system alternatives

- What is the most efficient system for the crop we are growing?
- In animal husbandry, where will water be needed at what volumes, at what times of the day / season?
- How will we deal with waste water in an environmentally appropriate way? Can the organic matter in waste water be harvested to use in any way?

Pest and disease management – minimising impact on local environment

- How will your farming practice consider micro-organisms and insects in the soil, such as earthworms and beetles eating decaying leaf litter?
- What consideration will you give to building up the soil with organic matter, recycling materials for compost, recycling grey water, mulching and planting to reduce water runoff (compared with grass or hard surfaces)?
- How can you increase the uptake of CO₂ by planting plants (plants take in CO₂ from the surrounding air and give off O₂ as part of the process of photosynthesis), providing habitat and food for pollinators (if suitable species are planted), companion planting techniques and the manipulation of natural plant products to avoid the use of artificial pesticides (artificial pesticides could potentially harm native species and enter the food chain)? Are you sure you are avoiding invasive plants that would have an effect on local ecosystems?



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Optimum climate and season to grow your chosen crop

- CONSIDER unpredictable rainfall patterns, extreme temperatures – heatwaves and frosts, drought and flooding, unusual humidity, and incidents of pests and diseases.
- Can you use data to make predictions for changing climate in your region? Will your region remain ideal for this crop in a changing climate?

Waste systems

- Is the waste produced by your farming practice unavoidable or can it be stopped at the source?
- If it's unavoidable can the waste product be used for anything (e.g. manure sold for biofuel)?
- What innovations in waste recycling, reuse and management can you use or adapt?

Innovative packaging concepts

- DISCUSS how packaging has changed in response to the need for more sustainable patterns of living as well as to new inventions in materials, processes and technologies such as refrigerated transport.
- LIST other considerations such as reduced time to market (faster transport) and the need to reduce wasted materials or food waste and their associated financial and environmental costs.
- THINK of how developments in materials, tools and equipment have influenced food packaging designed solutions.

FP2P Lesson Plan References

CIVICS AND CITIZENSHIP Lesson 1 Minding the Media	ACHCK053 p7	SCIENCE Lesson 3 Seasons and Fruit	ACSSU115 ACSIS124 p18
ENGLISH Lesson 5 Technical Language	ACELT1625 ACELY1725 p25	TECHNOLOGIES Lesson 2 Pack It Up	ACTDEK030 p18
GEOGRAPHY Lesson 1 Almond Orchards and Water	ACHGK037 ACHGK039 p8		
SCIENCE Lesson 1 Orchard Food Webs	ACSSU112 ACSIS125 ACSIS131 p8		