

# Final Project

**Objective:** This is a final project that can serve as an evaluation for the concepts explored over the course of the unit. This can be completed in place of an exam or in addition to an exam.

**Task:**

Students need to design an ecosystem that demonstrates the principals of sustainability that we have covered in the class. The ecosystem should be found in Saskatchewan and should be a combination of a natural ecosystem and one influenced by human development.

Students must include:

- ⇒ The plants that will live in the ecosystem.
- ⇒ The animals that will live in the ecosystem.
- ⇒ How the relationships between the plants and animals will determine that the ecosystem is sustainable.
- ⇒ Identify and explain the role of humans in the ecosystem.
- ⇒ Identify any challenges to sustainability that the ecosystem experiences.
- ⇒ Identify natural species and introduced species.
- ⇒ Explain the role and purpose of the introduced species.

## Final Project: Building an Ecosystem

You are a project planner for a new ecosystem in the province. You get to design a new ecosystem in Saskatchewan. First, choose a region or area of Saskatchewan that you would like to work with. Research the area and what its natural inhabitants are or were. Next, design the ecosystem from the ground up. Make sure you consider both biotic and abiotic components. You are responsible for creating the entire ecosystem from plants to animals.

While creating your ecosystem, keep in mind the people that now live there or the purpose of the area. An area that is urban should stay urban and the industries already present can be altered but should not be removed. It is important that you consider the balance between humans and the natural world.

You must present your ecosystem as a proposal to the class. In your presentation you should have a visual representation of what your ecosystem is going to look like. Also, you should have a written report explaining the details of the ecosystem.

The written report must explain:

What is living in your ecosystem.

How the land is being used.

How the ecosystem is sustainable.

What threats will put the ecosystem's sustainability at risk?

What is the plan to deal with these threats?

# Design An Ecosystem

	0-10	11-15	16-19	20-22	23-25
Description of Ecosystem	This is a very minimal representation of an ecosystem. Very few plants and animals are listed and described or much of the abiotic characteristics are left out. The description is missing many details.	The ecosystem is represented at a basic level. There are some details that give a good idea what the ecosystem looks like but there are also some gaps or missing information. This is the skeleton and ecosystem that needs to be fleshed out.	This has adequate detail to describe and outline the ecosystem. The plants and animals are described well. There is a clear relationship between the abiotic and biotic elements.	This is a great description of the ecosystem. Many plants and animals are described and included. The abiotic factors support the description and the details support the project.	There is a superb description. It is highly detailed and nearly inclusive of all possible life. The abiotic and biotic factors work well together and are outlined thoroughly.
Land Use	The project does not consider the balance between natural and human life.	Some consideration is shown for the balance between natural and human life but there are significant gaps.	Consideration is shown for both natural and human life but there are flaws in the plan.	Good consideration is shown for the balance between natural and human life.	Complete balance exists between natural and human life. The ecosystem is very harmonious.
Sustainability	The project does not seem to be a sustainable ecosystem.	The project could be sustainable if some changes were made to the plan.	The project is a sustainable ecosystem but no consideration was given to possible problems.	The project is a sustainable ecosystem and some problems were considered. The solutions may be vague or incomplete.	The project is highly sustainable and all possible problems are considered. The solutions are complete and logical.