



Virtual Field Trip Components

Section 1: Everything Ecosystems

In this section, students will learn what an ecosystem is. They will learn about abiotic and biotic factors and make observations of them outside in **“Can I Get an A?”** They can then experiment with modifying certain abiotic factors in an environment while keeping others constant in **“Abiotic Experimentation.”** In **“Creature Categories,”** they will learn how to build a dichotomous key, and then build one themselves. In **“Pick a Creature,”** students will complete a written research assignment about an organism of their choice and its ecosystem. Finally, in **“Building an Ecosystem,”** students will construct terraria and identify the abiotic and biotic factors involved.

- Educational Video: Ecosystem Expressions
- In-class Activity with Interactive Tool: Can I Get an A?
- Virtual Game: Abiotic Experimentation
- In-class Activity with Interactive Tool: Creature Categories
- In-class Activity: Pick a Creature
- In-class Activity: Building an Ecosystem

Section 2: Energy Exchange

In this section, students will learn about relationships within ecosystems. First, in **“You Are What You Eat,”** students will identify organisms by their roles in a food web. Then students will play **“What a Tangled Web We Weave”** where they will find their predator-prey match and then work together to construct their class food web. Students will take a deep dive into decomposers and composting, with a series of videos and quizzes about composting, and they will create promotional posters or write persuasive essays about composting in **“Breaking It Down.”** Students will also learn about different producers, consumers and decomposers at the Garden and the surrounding trails with our **360 Tour of the MUN Botanical Garden.**



- Educational Video: Who's Eating Whom?
- Virtual Game: You Are What You Eat
- In-class Activity: What a Tangled Web We Weave
- In-class Activity with Interactive Tool: Breaking It Down
- Virtual Tour of the MUN Botanical Garden

Section 3: What's Up Next?

In this section, students will learn about all about ecological succession, the way in which a biological community, or ecosystem, evolves and changes over time. Students will play along with a short review of a few terms about succession in "**Succession Sort.**" They will also imagine succession occurring around an abandoned castle in "**Castle Conundrum.**" Then in "**Going, Going, Gone,**" students will try to fly their paper "birds" through areas where habitat loss or fragmentation has happened and reflect on repercussions of habitat loss for bird populations. Last, students will play along with a fun review of all the content covered in this virtual field trip by playing "**Ecosystems Jeopardy!**"

- Educational Video: Here Today, Gone Tomorrow?
- Virtual Game: Succession Sort
- In-class Activity: Castle Conundrum
- In-class Activity: Going, Going, Gone
- Virtual Game: Ecosystems Jeopardy!



Curriculum Links

109-12 distinguish between terms that are scientific or technological and those that are not

109-13 explain the importance of choosing words that are scientifically or technologically appropriate

111-6 apply the concept of systems as a tool for interpreting the structure and interactions of natural and technological systems

112-3 explain how society's needs can lead to developments in science and technology

112-4 provide examples of Canadian institutions that support scientific and technological endeavours

112-8 provide examples to illustrate that scientific and technological activities take place in a variety of individual or group settings

112-9 identify science- and technology-based careers in their community

113-1 identify some positive and negative effects and intended and unintended consequences of a particular scientific or technological development

113-9 make informed decisions about applications of science and technology, taking into account environmental and social advantages and disadvantages

113-11 propose a course of action on social issues related to science and technology, taking into account personal needs

208-2 identify questions to investigate arising from practical problems and issues

208-3 define and delimit questions and problems to facilitate investigation

208-5 state a prediction and a hypothesis based on background information or an observed pattern of events

208-6 design an experiment and identify major variables

209-1 carry out procedures controlling the major variable



209-3 use instruments effectively and accurately for collecting data

209-4 organize data using a format that is appropriate to the task or experiment

210-1 use or construct a classification key

210-2 compile and display data, by hand or computer, in a variety of formats, including diagrams, flow charts, tables, bar graphs, line graphs, and scatter plots

211-2 communicate questions, ideas, intentions, plans and results, using lists, notes in point form, sentences, data tables, graphs, drawings, oral language, and other means

211-3 work cooperatively with team members to develop and carry out a plan, and troubleshoot problems as they arise

304-1 explain how biological classification takes into account the diversity of life on Earth.

304-2 identify the roles of producers, consumers, and decomposers in a local ecosystem, and describe both their diversity and their interactions

306-1 describe how energy is supplied to, and how it flows through, a food web

306-2 describe how matter is recycled in an ecosystem through interactions among plants, animals, fungi and microorganisms

306-3 describe interactions between biotic and abiotic factors in an ecosystem

306-4 identify signs of ecological succession in a local ecosystem