



We Will Survive

Grade 4 Lesson Plan

Lesson #1: We Will Survive

Duration: 60 mins + research time

Subject: Science

Topic: Basic Needs of Species in the TRUGG

Overview

While reviewing the basic needs for living things, students learn about a species of their choice in the Tumbler Ridge UNESCO Global Geopark (TRUGG) and explore its dependency on those basic needs to survive. Students then infer what might happen if their own needs are not met and make other connections to their lives.

Lesson Objectives

Students will be able to:

- Identify the basic needs of living things
- Identify locally important species in the TRUGG
- Connect the basic needs for survival with the success of a particular species in the TRUGG
- Conduct research to collect information about a specific species in the TRUGG
- Communicate information on the basic needs of the species they have studied

Curriculum Connections

Please see the *TRUGG Education Toolkit Curriculum Connections Matrix* for specific connections of this lesson to the B.C. Curriculum for Grade 4.

Materials

- Computer and digital projector
- *TRUGG Species Needs Hook Activity* slips in bags/envelopes
- *Overview of the TRUGG* Slideshow and Teacher Notes
- *Tumbler Ridge UNESCO Global Geopark (TRUGG) Species Inquiry I* Student Handout
- Access to computers/laptops, the Internet and/or other resources to support student research.

Teacher Prep

- Print the *TRUGG Species Needs Hook Activity* document. Prepare one copy per group of 3-4 students in your class. Splice this sheet to create vocabulary slips and put each set of words in a labeled bag or envelope.
- Review the *Overview of the TRUGG Slideshow* and *Teacher Notes*.
- Review the *Tumbler Ridge UNESCO Global Geopark Teacher Backgrounder*.
- Print and photocopy a class set of the *Tumbler Ridge UNESCO Global Geopark (TRUGG) Species Inquiry I Student Handout*.

Background Information

A UNESCO Global Geopark is an area recognized as having internationally significant geological heritage. Geoparks aim to reconnect people to the earth through conservation, tourism, recreation, education and sustainable development. At present, there are 140 UNESCO Global Geoparks in 38 countries around the world.

In 2014, the Tumbler Ridge aspiring Geopark became a UNESCO Global Geopark. Located in Northeastern B.C., the Tumbler Ridge UNESCO Global Geopark (TRUGG) is notable for its remote, wilderness location. It is the first Global Geopark in western North America, and the first to represent the plate tectonics that led to the formation of the Rocky Mountains.

The TRUGG is a major attraction in the region, with a network of hiking trails to numerous geosites, including spectacular waterfalls, dinosaur tracks, mountain summits, sedimentary rock formations, caves and canyons. The Geopark also informs us about the sustainable use and need for natural resources, while promoting respect for the environment and the integrity of the landscape.

This lesson explores the basic needs of all living things. Students should have some background knowledge of these basic needs, including:

- | | |
|--------------------------------------|-------------|
| 1.) Oxygen/Air | 4.) Shelter |
| 2.) Sunlight/Appropriate Temperature | 5.) Water |
| 3.) Food | |

Note that other needs (e.g. community/companionship/love, space/habitat etc.) may be identified by students. Encourage them to think critically about all of our needs and how they are connected to students' lives.

This lesson also provides a guided inquiry that students will build on in Lesson 2. Students can work in partners or groups on this assignment, as desired, and will need to have access to the Internet and/or the library.

Note that students may need considerable guidance with regard to the inquiry and research process. You may wish to provide support on specific skills, such as identifying key words and search terms for research, assessing the credibility of sources, and documenting sources to develop a bibliography.

Please see the *Tumbler Ridge UNESCO Global Geopark Teacher Backgrounder* for more background and details on the Geopark.

Lesson Activities

Introduction/Hook:

1. With students in small groups, distribute the bags/envelopes for the *TRUGG Species Needs* Hook (one per group). Ask students to open the bag/envelope and sort the vocabulary items inside into groups of similar items.
2. As a class, ask groups to share and discuss how they decided to sort the words. Explain that some of the words are related to the five basic needs of living things. Identify which of the words are basic needs for survival and list these on the board. Discuss any other ideas that students have about our basic needs.
3. Ask students to put the word slips back in the bag/envelope for collection.

Activity 1:

1. Distribute the *Tumbler Ridge UNESCO Global Geopark (TRUGG) Species Inquiry I* Student Handout and review with students.
2. Present the *Overview of the TRUGG Slideshow* (using the Teacher Notes, as needed).
3. Ask students to name different species that they know of that live in the TRUGG (or that live in their region). List these species on the board or chart paper and add others that may not have been suggested.
4. Ask students to choose a species from this list (or another of their choosing) and list this next to 'My Species' at the top of their handout.

Activity 2:

1. Provide access to computers/laptops, the Internet and/or other resources, and have students conduct research and complete their *TRUGG Species Inquiry I* handout.
2. When ready, ask students to share their findings with a partner or in small groups.

Closure:

1. Ask students to consider changes in their lives that might affect their basic needs (e.g. a lack of oxygen, food, water, sleep or shelter) and share with a partner. As a class, discuss how this might affect their relationships with family, friends, or at school.

Assessment/Evaluation

- Observe the introductory activity and assess student's ability to identify the basic needs of living things.
- Review and assess student's *Tumbler Ridge UNESCO Global Geopark (TRUGG) Species Inquiry I* Student Handout.

Extensions

- Students can extend on their inquiry into an animal of interest by creating a model, diorama or other representation of their animal meeting its basic needs in its natural habitat.
- Invite students to more deeply inquire about their animal (or another of their choice) and research its basic needs, habitat, current status and other topics of interest.