

GETTING STARTED

AN INTRODUCTION TO TEACHING TIME: WEATHER ON THE TRAPLINE

Science Alberta Foundation is very pleased to make *Teaching Time, Weather on the Trapline* one of our Science- In-A-Crate programs available in your community!

Teaching Time, Weather on the Trapline follows a grade 5 boy named Clifford (Cliff) as he joins his Mooshum (grandfather / uncle figure) on the trapline. It is autumn, and they are waiting for the first snow to fall. Each activity has an excerpt from Cliff's journal, which students need to read prior to starting the hands-on component of the activity. Step-by-step instructions on how to complete the activity are provided on the What To Do page.

This activity guide provides all the information you need to set up the crate and have your students successfully complete each activity. An introductory script found in this guide may help you set the scene for the crate. Also, specific materials lists and set-up instructions can be found for each of the eight activities in this guide. Activities are designed so they can be used as stations in your class. Activities do not need to be completed in order.

The activities are designed to be self-directed and students are encouraged to work independently as a group. The crate is designed for your class to be divided into seven or eight groups. Each group will complete the activities and answer the questions provided in their Student Journal. (A black line master is provided at the end of the activity guide so you can photocopy it for each student.) An Answer Key is also provided for your assessment of the Student Journals.

Students are also indirectly exposed to careers that require a working knowledge of weather. Such careers are discussed in a later section of this Activity Guide.

The activity topics are as follows.

Activity

Activity 1 -
Day 1: Fabric Testing

Activity 2 –
Day 2: Forecasting
Weather

Topic

Students design an experiment to test fabrics and choose those with characteristics that most effectively meet the challenges of particular weather conditions on the trapline.

Students learn how to use their observation skills to forecast weather on the trapline (for example: identifying 2 common types of clouds) and appreciate how important it is to be able to forecast weather when out on the trapline.

Activity 3 –
Day 3: Seasons

Students will describe the effects of the Sun’s energy on seasonal changes by investigating how the tilt of the Earth on its axis effects the amount of solar radiation reaching Mooshum’s trapline.

Activity 4 -
Day 4: Dew Point

Students will observe a model of the water cycle and make inferences as to why dew and other forms of precipitation come from moisture in the air.

Activity 5 -
Day 5: Climate over Time

Using real weather data from Alberta, students will determine the type of climate Mooshum’s trapline has, and understand that climate refers to long term weather trends.

Activity 6 –
Day 6: Climate around the World

Students will learn about different climates around the world and recognize that climate varies around the world.

Activity 7 -
Day 7: Weather Meter

Students will learn how to use a Digital Weather Meter with the purpose of an extension activity in which students will measure different kinds of weather phenomena and record the weather over a period of time (duration the crate is in their classroom.)

Activity 8 –
Day 8:
Digital Air Movement Experiment

Students will undergo a digital experiment to observe patterns of air movement that result when one area is warm and another is cool.