



# 4th Grade Fossil Exploration Classroom Teacher Information

*Programs are subject to change based on weather, temperature, road conditions, public health and safety concerns.*

## **Synopsis:**

This student centered exploration provides students the opportunity to search for, observe, and share discoveries about fossils. Students will observe patterns in rock layers and fossils found in those layers. Students will collect\* and examine fossils, then choose one to study through drawing, recording observations and questions in writing. Students will use field guides or identification keys to identify their fossil. They will form arguments to support an explanation that environments have changed over time. \*All collected organisms must be returned to where they were found.

## **Students will:**

- Make close observations of fossils and other organisms
- Use a simple field guide to identify fossils
- Communicate an understanding of the relationship between Lake Bonneville and the fossils found in Logan Canyon .

**Program Length:** 2 hours

**Location:** Spring Hollow Campground, Logan Canyon

**Seasons Offered:** Fall and Spring

**Program Fee:** \$6 per student

## **Logistics:**

- When the bus arrives, we will open the gate and instruct the driver to pull through and off-load Ss. The bus driver will then park at group site A. Instruction will begin where Ss got off the bus.
- Please plan time to load the bus at your school and drive to [Spring Hollow Campground](#). Please arrive at the site 5 minutes before your program starts. Programs will begin and end on time.
- Please have a plan for dividing your group in half, each smaller group should include a teacher or staff from your school.
- Program will end near the location of the bus.
- Students should wear comfortable clothing that may get dirty.
- We will be outside for the entirety of this program, dressing in layers is advised.
- Closed toe shoes are appropriate. Please, **no flip flops**.
- All students and teachers should have a face covering available at all times.
- Students should wear visible name tags (packing tape over a name tag keeps them from falling off).
- Please bring one adult per five students.
- Depending on the date of your field experience, restrooms may not be available on site.

## **Classroom Teacher Pre-Program Preparation**

- If multiple classrooms from your school are participating, please ensure that all teachers on your team receive the confirmation email which contains essential information about your scheduled field experience.

**Curriculum Connections:**

SEEd Standard 4.1.4

Science and Engineering Practices	Crosscutting Concepts	Disciplinary Core Ideas
Asking questions Engaging in argument from evidence	Patterns Stability & Change	Biological Evolution Earth's Place in the Universe

**Additional Utah Core Curriculum Connections**

Subject	Standard	Objective
English Language Arts	Writing Std 8	Recall relevant information from experiences ...
	Speaking and Listening Std 1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 4 topics and texts, building on others' ideas and expressing their own clearly.
Social Studies	4.1.1.b	Examine the forces at work in creating the physical geography of Utah.
	4.1.2.f	Explain how archaeology informs about the past.
Physical Education	4.3.1	Analyze opportunities for participating in physical activity outside physical education class.
	4.4.1-7	Students will develop cooperative skills and positive personal behavior through communication and respect for self and others. Students exhibit personal responsibility in a group setting by working well with others, accepting feedback, and understanding how rules and etiquette contribute to a safe and enjoyable environment.
	4.5.1-4	Students will appraise the personal value of physical activity as a tool for wellness, challenges, and interacting with appropriate social skills with friends and family. Students will identify activities that bring satisfaction and pleasure through participation and reflect how physical activity promotes a lifetime of wellness.
SEL	K-12	This program supports students' growth in all 5 CASEL core competencies: Self Awareness, Social Awareness, Responsible Decision Making, Self Management, Relationship Skills.



## 4th Grade Snowshoeing Exploration & Tracking Classroom Teacher Information

*Programs are subject to change based on weather, temperature, road conditions, public health and safety concerns.*

### Synopsis:

This student centered program combines a popular form of winter recreation with a focused exploration activity. Students will learn how to safely snowshoe in a group and will use observation skills to notice evidence of animals living in the area. Students also engage in key science practices as they share explanations for the animal signs they find and how that animal's structure supports it in this geographical area.

### Students will:

- Use evidence to construct explanations about plants and animals in the area
- Focus explanations on internal and external structures that function to support survival, growth, behavior, and reproduction of same
- Critique and compare explanations through scientific argumentation
- Learn and apply basic tracking skills

**Length of Program:** 2 hours

**Location:** Murray Farm Trail or Green Canyon (depending on conditions)

**Season Offered:** Winter

**Program Fee:** \$9 per student (includes snowshoe rental)

### Logistics:

- Please plan time to load the bus at your school and drive to the field site.
- Confirm the location of your field experience with the driver before leaving your school.
- Please arrive at the site 5 minutes before your program starts. Programs will begin and end on time.
- Students should wear comfortable clothing that may get dirty and/or wet.
- We will be outside for the entirety of this program, dressing in layers is advised.
- In order for the snowshoes to fit correctly, students should wear snow boots. Please, **no gym shoes.**
- We have a limited number of boots, coats, and gloves to loan your students if they need them. Please request these a few days in advance of your program.
- Students should wear visible name tags (packing tape over a name tag keeps them from falling off).
- Please bring one adult per five students (there is no charge for teachers or chaperones).

## Curriculum Connections

SEEd Standards 4.1.1

Science and Engineering Practices	Crosscutting Concepts	Disciplinary Core Ideas
Constructing Explanations Engaging in Argument from Evidence	Structure and Function Cause and Effect	Molecules to Organisms

### Additional Utah Core Curriculum Connections

Subject	Standard	Objective
English Language Arts	Writing Std 8	Recall relevant information from experiences.
	Speaking and Listening Std 1	Engage effectively in a range of collaborative discussions with diverse partners on grade 4 topics and texts, building on others' ideas and expressing their own clearly.
Social Studies	4.1.1.a	Identify Utah's...climate, natural resources, landforms...
PE	Strands 1-5	
SEL	K-12	This program supports students' growth in all 5 CASEL core competencies: Self Awareness, Social Awareness, Responsible Decision Making, Self Management, Relationship Skills.