

**LESSON: Burrow Investigation      GRADE: 2<sup>nd</sup>      TIME: 45 min.****SUMMARY:**

Students conduct a prairie animal field investigation based upon their own questions. A field leader uses pictures and field guides to introduce students to burrowing prairie animals. Based on their knowledge, students ask questions about burrowing animals that they can discover on the prairie. They observe, collect and record data that will help them answer their investigative questions. Later, they reflect and compare and contrast the adaptations of burrowing animals using a Venn Diagram.

**OBJECTIVES: Iowa Core  
Science****Biological Evolution: Unity & Diversity**

- **2-LS4-1** Make observations of plants and animals to compare the diversity of life in different habitats.

**Mathematics****Measurement and Data**

- **2.MD.D.IA.2** Use interviews, surveys, and observations to collect data that answer questions about students' interests and/or their environment.

**Literacy****Speaking and Listening**

- **SL.2.1.** Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups.
- **SL.2.4.** Tell a story or recount an experience with appropriate facts and relevant, descriptive details, speaking audibly in coherent sentences.
- **SL.2.6.** Produce complete sentences when appropriate to task and situation in order to provide requested detail or clarification.

**Writing**

- **W.2.7.** Participate in shared research and writing projects (e.g., record science observations).
- **W.2.8.** Recall information from experiences or gather information from provided sources to answer a question.



## **MATERIALS & RESOURCES:**

- Blank paper or nature journals & example journal entry (see last page)
- Pencils
- Pictures or field guides with burrowing prairie animals
- White board
- Dry erase marker

## **PRESENTATION:**

Explain to students that today, they will be learning about burrowing animals on the prairie. Ask students what they already know about burrowing animals. List their answers on the board. What burrowing animals might we find here on this site?

## **DIRECTIONS:**

1. Tell students that today they will be using their nature journals to investigate animal burrows. They will be searching quietly along the trail or in the prairie and recording information about burrowing animals.
2. Before they go outside, ask students to prepare their nature journals. Have students record the date, time, weather, location and temperature at the top on their nature journal. They will also need to create a title for their entry such as “Burrow Investigation”. Invite students to be creative in naming their entry.
3. Review expectations with students and Remind them to use words, numbers, and pictures. Provide examples if needed.
4. Pass out clip-boards, journals, and pencils and remind students that naturalists are happy outside, explorers, adventurers, respectful, and quiet. They ask questions, use words, numbers and pictures, and share their discoveries.



5. Once outside, have students search quietly along the trail or in the prairie. Provide them with time to draw and write about their findings. Encourage them to use all of their senses to explore the area around them.
6. Once students are inside, have students share their observations and drawings. After sharing, ask students to write one complete sentence about their time outside. To spark their writing, ask them questions like, “Why would a prairie animal have a burrow?”, “What did they find interesting? “, and “What did they learn that they never knew before?”

### **BACKGROUND INFORMATION:**

Dirt holes are some of the most common and obvious signs of animal activity in nature, because they connect to underground tunnels and burrows where animals are warm and protected. Different animals go underground for different reasons including but not limited to providing dens for raising children, temperate areas to hibernate, safe places to escape wildfires, protected areas to store food, and quick escape routes from predators.

It is often hard to identify who dug a hole unless you see the animal actively digging. Realize that many holes are abandoned and others have been re-occupied by unexpected animals. You can make a reasonable guess about who might be the original digger (and possible inhabitant) by measuring the holes diameter.



## REFLECTION/JOURNAL PROMPT:

### *Burrow Investigation*

Whiteboard lesson set-up:

**On whiteboard:** Write the definition of a burrowing animal “An animal that lives underground”. List characteristics of burrowing animals ie: dig holes, build burrows, etc. Make a list of burrowing animals that students know.

### *Journal Example*

NSNWR	Name		
Weather		Date	
Temp	<u>Burrowing Animals</u>		Time

I didn't see the animal that lives in the burrow. I think it belongs to a Thirteen-lined ground squirrel because holes are about 2 inches big.

Mound of dirt

Multiple 2 inch sized holes