

Tracks lab – Practice observing, inferring, and predicting

Intro: Suppose that, on a chilly winter day, you hike through a park. You suspect that many animals live there, but you don't actually see any of them. Instead, you see signs that the animals have left behind, such as mysterious tracks in the snow. These tracks are evidence you can use to make inferences about the animals, such as what size they are and what they were doing.

Define:

Observation: _____

Inference: _____

Things to consider: (you do not need to write your answers to these questions, just think about it before continuing)

- What is the difference between observations and inferences? (see notes if needed)
- How does the size of animal feet usually compare to the size of their body?
- How can tracks tell us about how an animal moves? (walking, hopping, etc)
- How can tracks tell us how fast an animal is moving? (standing still, walking, running, etc)

Observe and Infer:

Look at the picture of the park with the different sets of animal tracks. Notice how the picture is divided into 3 sections.

Focus on section 1. Write 3 observations about the tracks in section 1 and write them below. Then write an inference based on each observation.

| Tracks in Section 1 | |
|----------------------------|------------|
| Observations | Inferences |
| 1. | 1. |
| 2. | 2. |
| 3. | 3. |

Now focus on section 2. Write 3 observations about the tracks in section 1 and write them below. Then write an inference based on each observation.

| Tracks in Section 2 | |
|----------------------------|------------|
| Observations | Inferences |
| 1. | 1. |
| 2. | 2. |
| 3. | 3. |

Now focus on section 3. Write 3 observations about the tracks in section 1 and write them below. Then write an inference based on each observation.

| Tracks in Section 3 | |
|---------------------|------------|
| Observations | Inferences |
| 1. | 1. |
| 2. | 2. |
| 3. | 3. |

Conclusions:

1. How many types of animals made the tracks in the picture? _____ Why do you think this?

2. What inferences can you make about the relative sizes of the animals based on their tracks?

Animal A = bigger / smaller Animal B = bigger / smaller Animal C = bigger / smaller

Why do you think this? _____

3. What can you infer about the speed of the animals movements? For example, are they walking, running, standing still? How can you tell?

I think Animal A is _____

because _____

I think Animal B is _____

because _____

I think Animal C is _____

because _____

4. In a paragraph, explain what you think happened to the animals and the order in which the events happened.

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

5. How might making inferences be important in the work of a real detective?

Give some examples of observations and inferences a real detective might make:

| Observations | Inferences |
|--------------|------------|
| 1. | 1. |
| 2. | 2. |
| 3. | 3. |

