

CURIOSITY AT HOME

NAKED MOLE RATS OBSERVATION



Observing animals is a great way to learn about a single animal or a group of animals. Observe the naked mole rat colony at Pacific Science Center in this activity.

MATERIALS

- Paper or science notebook
- Pencil
- Internet connection to:
<https://www.pacificsciencecenter.org/exhibits/living-exhibits/naked-mole-rat-cam/>

PROCEDURE

- Look at the naked mole rats through the web cam.
- Make a sketch of the naked mole rat colony. Label the rooms and tunnels in your sketch, as well as any other things you see like food, bedding, or objects.
- Pick three different times during the day (at least 1–2 hours apart) to observe the colony. At each of your selected times look at the colony. Record what you see in your science notebook.
- Some possible things to write down or draw are:
 - o How many naked mole rats are in each area?
 - o What are they doing?
 - o Also write down your questions about the naked mole rats.



Experiment continued on next page...



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EXPLORE MORE:

Try to watch just 1 naked mole rat for 2 minutes. Record what it is doing. An hour later, try to observe the same animal again for 2 minutes.

- What was the naked mole rat doing? What was it interacting with?
- What was easy or challenging to watch just one naked mole rat? Why?

Draw a picture of a new naked mole rat home for our colony. How would it look? What would be included, and why?

Pick another animal you can observe and record its behavior. You could pick a pet, or a bird, squirrel or insect. Make a chart in your science notebook like you did for the naked mole rats, and observe it three times.

- What behaviors did you see that were similar to the behaviors with the naked mole rats?
- What behaviors were different?

DID YOU KNOW?

There are many different ways to observe animal behavior. Observing the whole colony at once is called scan sampling. It is useful to learn about a large group of animals, especially when you can't tell them apart. Observing just one animal at a time is called **focal animal sampling**. It is hard to do if you can't easily tell the animals apart, but it is useful to learn more about the interactions that animal has.

Which method was best for the naked mole rat colony?

An important part of observing animals is to not interfere with them; we want to make sure that we aren't doing any actions that would change what the animal is doing while we are watching it. How can you make sure you aren't changing the animal's behavior?

To learn more about naked mole rats, see:

<https://www.pacificsciencecenter.org/exhibits/living-exhibits/naked-mole-rat-cam/>

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K-2 GRADE EXPLORATION

After your final observation, look at your notes.
Can you answer these questions?

- How was their food moved around over the course of the 3 observations?
- What was the same each time you made an observation? What was different?
- What was hard or easy about making these observations?
- What do you want to know about naked mole rats? How could you find an answer to your questions?



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3–5 GRADE EXPLORATION

In addition to making a sketch of the colony in your notebook, make a chart in your science notebook that looks like this. Fill it out for each observation time. You will need to use more than one line for each time you are observing. *(Two lines are filled in as an example.)*

Observation Time	Location (Use your labeled sketch)	Observations
11 a.m.	Room A	3 naked mole rats are eating something green
11 a.m.	Room B	1 naked mole rat is walking

After your final observation, look at your notes.
Can you answer these questions?

- How was their food moved around over the course of the 3 observations?
- What was the same each time you made an observation? What was different?
- What was hard or easy about making these observations?
- What questions do you have about Naked Mole Rats and their behavior?
- What experiment could you do to find an answer to your question?
- How are the behaviors you observed helpful for the animal to survive?



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6–8 GRADE EXPLORATION

In addition to making a sketch of the colony in your notebook, make a chart in your science notebook that looks like this. Fill it out for each observation time; will need to use more than one line for each time. (*Two lines are filled in as an example.*)

Observation Time	Location (Use your labeled sketch)	Behavior Observed	Number of animals doing that behavior
11 a.m.	Room A	Eating and moving food around	3 animals
11 a.m.	Room B	Sleeping in a pile	10 animals

After your final observation, look at your notes. Can you answer these questions?

- How was the food moved around over the course of the 3 observations?
- What was the same each time you made an observation? What was different?
- Make a list of all the behaviors you see during your observations. Can you put these observations into different categories?
- What was hard or easy about making these observations?
- What questions do you have about Naked Mole Rats and their behavior?
- What experiment could you do to find an answer to your question?



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