

# What Would Happen?

TIME Preparation: 15 minutes Activity: at least 30 minutes (longer if desired)

SETTING Classroom

## Objectives

In this activity, students will:

1. experience the process of inquiry.
2. spark and satisfy curiosity about invertebrates.
3. make and test predictions.
4. communicate the results of the investigation with each other and with adults.

## Inquiry

This activity will engage students in these parts of the inquiry process:

- ❖ Observation. ("Notice and wonder.")
- ❖ Experimentation. ("Try it!")
- ❖ Framing a research question. ("What would happen if...?")
- ❖ Making a prediction. ("Tell me what you think will happen.")
- ❖ Doing an experiment. ("Try it!")
- ❖ Sharing results with the community. ("Tell us what happened.)

See [Introduction to Inquiry](#) for an explanation of these terms.

## Introduction

Please read [Introduction to Inquiry](#) for background information about the scientific inquiry process modeled in this activity.

## Materials

snails, earthworms, "roly-poly" bugs, or any other invertebrates (try collecting them from your schoolyard)  
clear containers you can place the animals in for viewing  
magnifying glasses

## Activity

### Preparation

1. Spend a little time observing the animal yourself. Try a few simple experiments to test questions that you, as an adult, have about the animal. Keep these ideas in mind to help guide your students' explorations.
2. Place the animal(s) in a container that makes it easy to see.

### Introduction

- ❖ You can use this activity as a follow up to the "Notice and Wonder" activity. If you are doing that, start by reviewing the questions generated in that activity.

- ❖ You can also use this activity on its own. If you are doing that, start by giving your students time observe the animal and brainstorm questions about it.

## Exploration

1. Introduce the prompt “What would happen if...” Let students generate questions starting with that prompt.
2. If desired, record students’ questions on the board or on chart paper.
3. As a class, choose at least one question to test. Be careful to choose a question that will be safe for the animal!
4. Ask students to make a prediction about what they think will happen. Have them tell a partner about their prediction, or share predictions as a class.
5. Help students carry out the test.
  - o Be prepared to be a little flexible in this process.
  - o Depending on the question that is chosen, this may be a quick, simple test or may take some time. For example, a question like “What would happen if we turned the snail’s jar upside down?” is fairly straightforward and will not take long to test. On the other hand, a question like “What would happen if we gave it different types of food?” will take longer; you will need to gather different food items to use, and it could take a day or two for the animal to eat enough of its preferred food source to be noticeable.
  - o It can be tempting to make this simpler by testing a question chosen by you (the teacher), but the experience will be much more meaningful to students if they are testing a question that they chose themselves.

Let your students generate the questions for this activity as much as possible. However, if you get stuck, here are a few you might try:

- o What would happen if we offered it different types of food? Which would it eat?
- o What would happen if we turned the snail’s jar upside down while it’s climbing the side? Would it keep going in the same direction?
- o What would happen if I touched the roly-poly bug on its back? Would it curl up?
- o What would happen if we put the earthworm in a container with dry soil and wet soil? Which would it choose to burrow in?

## Reflection

- ❖ Discuss the results of the test. Have students describe to each other what they saw happen.
- ❖ Have students compare the results to their predictions. Be careful not to place any value judgment on predictions that did not match the results—there is nothing bad about an incorrect prediction! Guide students to discuss their predictions following this example: “Before we tried it I thought that the snail would want to eat the apple. When we tested it I saw that the snail ate the lettuce instead. Now I know that snails like lettuce better than apples.”

- ❖ If you are using journals, help students record the question, prediction, and results as they go along. They can draw the test as it happens or take photos to tape into the journal.

### Next Steps

- ❖ If you have time, repeat the activity with different questions. As you know, your students can be an infinite source of questions and curiosity, so you can continue investigating for any length of time. Always be conscious of the needs and health of the animal, and give it some time to rest between investigations.

### Preschool Learning Foundations

- ❖ Demonstrate curiosity and raise simple questions about objects and events in their environment.
- ❖ Observe objects and events in their environment, and describe their observations.
- ❖ Make predictions and check them through concrete experience, with adult support.
- ❖ Record observations or findings through a variety of forms, with adult assistance, including pictures, words (dictated to adults), charts, journals, models, and photos.
- ❖ Share findings and explanations, which may be correct or incorrect, with or without adult prompting.

It is important to keep your experiments safe for the animal. As a good rule of thumb, think about your pets at home. If you wouldn't do it to your own pet, don't do it to these invertebrates! Here are a few tips:

- **Don't** let students squeeze or press on the animals.
- **Don't** shake the containers that they are in.
- **Don't** expose them to extreme heat or cold.
- **Do** provide them with plenty of food and water to keep them healthy while they are in your care.
- **Do** release them back into their natural habitat when you are done.

For more science activity ideas, see [Three Ideas For Preschool](#).