

# All About Animal Behavior & Communication

Investigation Data Sheet



## Learned Behavior of Animals

Animals learn in a variety of ways. With a little time and patience, you can teach a pet dog how to sit and even roll over. Learned behaviors are actions that must be taught to animals by their parents, other animals or through life experiences. Hunting and avoiding danger are learned behaviors for most animals.

### Objective

Conduct an experiment to teach a goldfish a learned behavior.

### Materials

- a goldfish
- an aquarium
- fish food
- some aquarium gravel
- water to fill the aquarium
- water conditioner (if you use tap water)

**Safety Notice:** All applicable laboratory safety rules must be followed. Students should not perform any experimental activity without the teacher's supervision and express permission. Students must follow safety guidelines and wear appropriate protective gear.

### Procedure

1. Set up the aquarium in an area that does not receive direct sunlight. Add some gravel to the bottom of the aquarium and fill it with water. Add water conditioner if you use tap water. Let the aquarium sit overnight. Return to it the next day and add the goldfish.

2. Before you feed the goldfish, tap one side of the aquarium three times to see if the fish comes toward your finger. Record what happened in the space below.

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3. Wait 15 minutes, then tap again three times and drop some food in the aquarium. While the fish may not respond to your tapping, it will eventually come over to eat its meal.
4. Feed the goldfish once each day. Remember to tap three times on the aquarium before putting in the food. Be sure to always tap and feed from the same side of the aquarium. In time, you should begin to see the fish moving toward your finger after you tap and drop food. Record your observations of how the goldfish responds over seven days in the table below.
5. After one week, try tapping on the tank but do not add food. Does the fish still come to your finger? It should. And it will continue to come until the goldfish learns that a tap does not necessarily mean that food is coming.

### Conclusions

- How was communication used to teach the goldfish this learned behavior?

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- What other examples of animal learning can you think of?

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Day	Observations — What happens after you tap and add food? How does the fish respond? How long does it take for this response to happen?
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3	
4	
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