

# Innate vs. Learned Behavior

**Objective:** SWBAT find information in an article about instinctive and learned behaviors using guiding questions and selective highlighting.

## Step 1. Vocabulary

- Introduce the vocabulary to your students:
  - Innate behaviors** – behaviors that you are born with, and do not have to be learned or practiced
  - Instinct** – the ability to perform a behavior automatically in response to a stimulus
  - Stimulus** – an event that triggers a reaction
  - Learned behavior** – behaviors that you learn and modify as you gain experience

## Step 2. Video

- Show your students the following video:  
<https://youtu.be/euHh6fFwpFg>

## Step 3. Introduction to Selective Highlighting

*(skip this if your students know how to do it)*

- Pass out the article to your students.
- Explain what selective highlighting is:

*Today we are going to be looking for answers to specific questions in our article. Whenever we come across a sentence that helps us to answer a question, we're going to highlight it. Before I pass out the highlighters, let's see what the questions are.*
- Read the 3 questions aloud as a class.

*Let's read the first page of the article, and then we'll figure out what we can highlight.*
- Read the first page of the article as a class.

*One thing I noticed that we could highlight is "At five weeks old, wild pups are starting to be much more active in the water and are fully capable of swimming directionally." This seems like it answers question #1 to me. As I pass out the highlighters, find that sentence on your page and highlight it. [note – you could also have your students put a '1' for question 1 next to their highlighting]*

## Step 4. Highlight

- Pass out highlighters to students and allow them to read the rest of the article and highlight sentences that answer the 3 questions.

## Step 5. Discuss

- Discuss the answers to the 3 guiding questions as a class.

## Step 6. Conclusion

- Ask students to answer the 3 conclusion questions at the end of the article.

Name: \_\_\_\_\_ Period # \_\_\_\_\_ Date: \_\_\_\_\_

**Topic:** Animal Instincts  
**Skill:** Selective Highlighting

**Instructions:** As you read the text, highlight anything that answers these questions:

1. What instincts do sea otters have?
2. What would a mother sea otter usually do for its baby sea otter?
3. How do the sea otter's human caretakers help her to grow up normally?

## **Orphaned Baby Sea Otter Learns to Float**

By Linda Qiu, National Geographic. PUBLISHED NOVEMBER 12, 2014

Just as it takes a village to raise a child, it takes a team of animal experts to raise an orphaned sea otter. A baby southern sea otter named Pup 681 has made a splash online since a video of her squealing, squirming, and learning to swim at Chicago's Shedd Aquarium went up on YouTube.

The pup, rescued along the shore of California on September 30, was placed in intensive care at Monterey Bay Aquarium for four weeks before moving to Shedd. The furry pup is not only adorable but also rare: Her species has been decimated, by the fur trade historically and by modern threats such as oil spills and climate change. Southern sea otters are listed as threatened by the U.S. Fish and Wildlife Service, and approximately 3,000 animals remain in the wild.

National Geographic asked Karl Mayer, a sea otter conservationist and one of Pup 681's caretakers at the Monterey Bay Aquarium, to tell us more about how to bring up an otter in captivity.

### **How did Pup 681 become an orphan?**

681 was stranded north of Santa Cruz, in an area where sharks often eat otters. Something could have happened to mom, or mom could have been in pretty weak condition and couldn't care for her. We don't really know.

### **How's her condition in the video? Being a rescued, orphan pup, how does she compare with wild pups her age?**

681 is five weeks old. She's a little behind where you see wild pups. At five weeks old, wild pups are starting to be much more active in the water and are fully capable of swimming directionally. 681 isn't quite there yet.

When we picked her up at a week old, she was in pretty good condition, healthy but underweight. She's still in very good condition, and starting the shedding process. Once a wild pup sheds her pup coat, she's a fully functional juvenile animal, capable of diving, retrieving food, and weaning herself off of formula.

### **Why is she squealing?**

Sea otters have a range of sounds. They'll vocalize to indicate any kind of discomfort, when they're starting to get cold, prior to defecating, when you're grooming them. They'll also vocalize happy noises when they're relatively content. Here, she's probably indicating she's a little cold in the water.

### **When they put her in the water, are they teaching her to swim?**

It's not so much "teaching." I would characterize it as encouraging to develop otter behavior. Human caretakers are not acting as role models, climbing into the pools and swimming with them, so much as trying to stimulate any kind of activity—prodding her, encouraging her.

In the wild, mom would be actively swimming around in the ocean. And they'll want to look for mom, and will go underwater to try to follow her. That developmental encouragement, you need to replace that. (Related: "Sea Otter Moms Risk Lives to Raise Babies.")

### **Around the minute mark, she's wiping her face. What's going on there?**

That's basically an attempt at grooming—uncoordinated grooming. She hasn't developed the ability yet, but she's trying. That head shaking when she's up on the towel, we call that shimmying. It's another attempt at grooming.

### **So when they're drying her off, it's because she can't do it herself?**

Right. In the wild, mom would be doing the bulk of the grooming. Maintaining fur quality is one of the most important tasks in rearing a pup. If you have residual wetness, the fur starts to clump and doesn't lie together properly. And that starts to affect the pup's development.

### **What are those purple straps, and why is she placed in them?**

That purple stuff is the felt straps in a drive-through car wash that flops back and down to clean the windows. The nice thing about it is that it floats. In the ocean, kelp is anchored on the ocean floor but floats up on the water's surface. Sea otters like to roll around in and fall asleep in kelp. So the purple felt acts as kelp and mimics her natural environment.

### **What are some of the challenges human caretakers face in rearing a pup?**

Initially, the biggest thing is adjusting to the new food—puppy formula. There's a fairly reasonable likelihood that mild bloating, gas, diarrhea, and other issues will occur. A young pup like 681 who was with mom for a very short amount of time, her body probably lacks colostrum [a mammal milk that contains antibodies]. So she's more susceptible to things like gastrointestinal disorders and infections. And there's also the development of mats in her fur, because she's incapable of grooming. Basically she's an uncomfortable, colicky infant.

1. Are sea otters born knowing how to swim (instinct) or is it learned behavior?
2. Why is it important for animals to grow up in their natural environments?
3. Is sea otter 681 going to grow up to be like a wild sea otter? Why or why not?