

INSTRUCTIONS

The Bird Beak Adaptation lesson is a favorite in my classroom. This is a super fun lesson that is broken into stations with different rotations. The kids absolutely love it and walk away with a better understanding of animal adaptations. There are many variations of how to teach this lesson, each as effective as the other.

One of the ways I teach this lesson is to assign each student a specific "beak" to be carried with them through each rotation. You can also lay the "beaks" out and draw student's names allowing them to pick their own tool. I like to do this without giving any clues or insight to what the tools will be used for. Once "beaks" are assigned split the class into 6 groups. Aim to have at least one type of each beak in each group. Each student will also need a small cup. The cup MUST be held to their chest the entire game, leaving them only one hand to use to pick up the food. I repeat this process 3 times.

Students will rotate to a new station every 45 seconds. Each station has a different color of food specific to a different beak. As they rotate through each station, students will use their beaks to pick up the food. Each beak has their pros and cons when trying to collect. I give students 45 seconds to collect as much food as they can. *I suggest you instruct them to only use one hand. At the end of 45 seconds students will count the number of pieces of food they were able to ingest and write the number on their data tracker. You will repeat this attempt section on the printable. One of the reasons I use this is for students to either try a second time with the same beak, or let them try a different beak once they have tried all the rotations with their first assigned beak.

The materials you need for this lesson are the following:

- **Rice, and Clay:** Simply, just press the dough into a pile of rice.
- **Straws:** I cut the straws, I don't measure, but would estimate the ones I use are close to 2 inches.
- **Marbles and wide mouth container to hold water:** With the marbles I use a container full of water, (like an ice cream bucket)
- **Rubber Bands:** The rubber bands I use are assorted sizes, the thicker are easier to pick up. I cut them up just so there are more. You could keep them whole and save them for when you need a rubber band ;D
- **Seeds:** I found a chip/dip tray at the dollar store that was perfect for the seeds. If not, would spread them on a cookie sheet pan. You could use a bird mix. I use sunflower seeds.
- **Water and Container:** (Narrow base is best) Represents nectar in a flower.

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Hopefully you can adapt the lesson to what you already have. I'll include what I use below.... Keep in mind these materials can be used year after year. I initially bought the majority of my supplies at a dollar store for less than \$30.00

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For the beaks I use chopsticks, tweezers, slotted spoons, straws,



I also included a key as well as an actual beak and a data tracker. I do this as much as I do! If you are interested, please let me know if you would like to purchase this. The writer describes the set-up and how to use it. If you enjoyed this lesson, please consider my member-only content available in my library at On Lemon Lane. It's so easy, so peasy, Lemon squeezy!

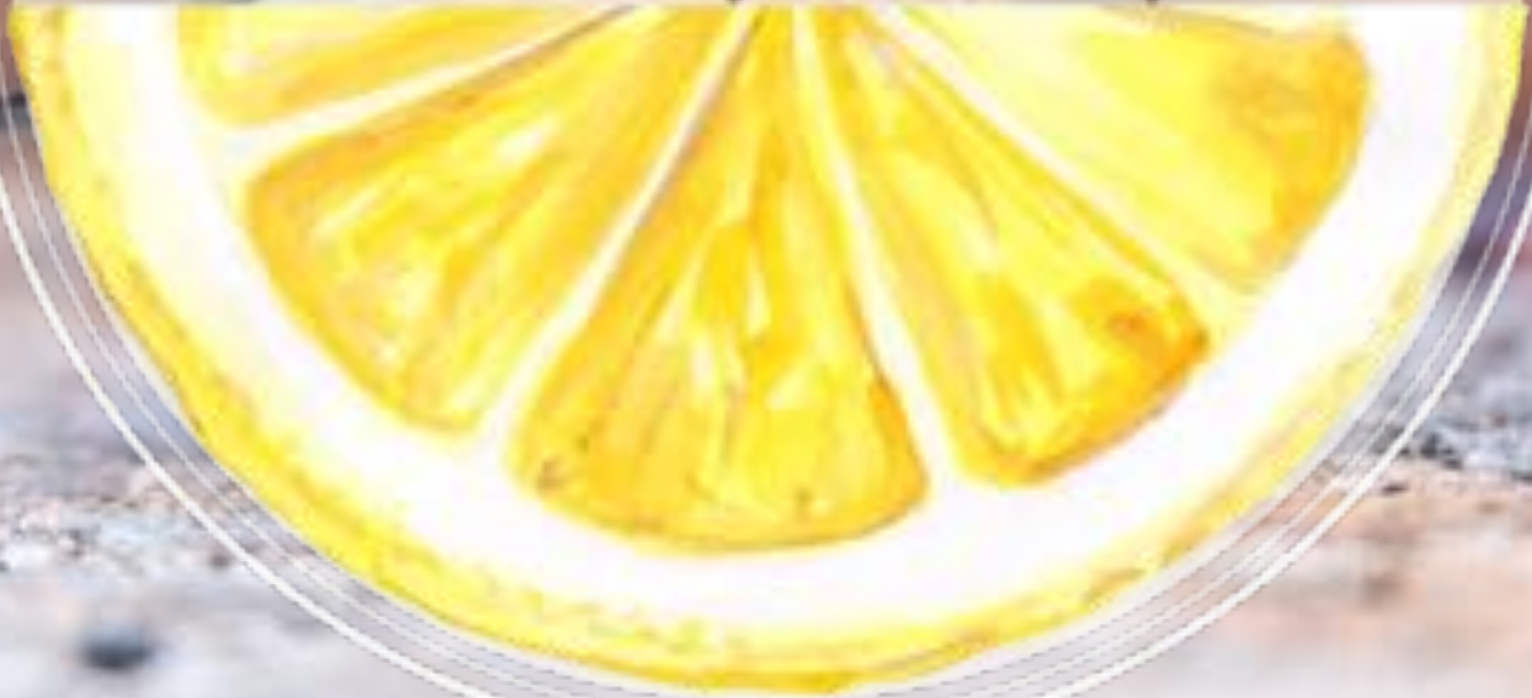


FINCH

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HUMMINGBIRD

FLAMINGO

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WARBLER

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DUCK

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IBIS

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Finch = Clothes Pin

A finch is generally a seed eater. They crack open seeds and nuts with their short, stout, cone-shaped beaks. These beaks have some special features that make cracking easier: the edges of the lower mandible (the lower beak) fit into special grooves in the upper mandible (upper beak). A finch will use its tongue to maneuver seeds into the groove. When the bird closes its beak, the sharp lower mandible crushes the seed's shell so the bird can eat the seed within.

Hummingbird = Straw

Hummingbirds are very small birds and they have a high metabolism. A great deal of energy is spent flying, so they must feed almost constantly. Hummingbirds can consume up to 50% of their weight in sugar (nectar solution) each day. Hummingbirds have long, needle-like beaks. Its beak is just a protective sheath for its tongue. A hummingbird sticks its tongue into a flower, and the nectar is drawn up into the two "troughs." There is no suction going on. Instead, these grooves are drawing the nectar to them in much the same way a paper towel draws up water. This process is called capillary action. A hummingbird can extend and retract its tongue from three to thirteen times per second – which makes it look like the hummingbird is licking or lapping up the nectar. Hummingbirds also eat insects to get protein.

Flamingo = Slotted Spoon

Flamingos are pink because the algae they consume are loaded with beta carotene, a chemical that contains a reddish-orange pigment. To eat, flamingos will stir up the bottom of the lake with their feet and duck their beaks down into the mud and water to catch their meal. They actually eat upside down and use the openings at the top of their beaks to filter the water they pump through their beak.

Warblers mostly eat insects and other small animals that enable them to grab insects and other small meals.

that enable multi-legged

Ducks use their beaks to detect food. Ducks fall into one of two categories. Divers dive deep underneath the water and their beak will allow.

and inedible objects. They dig under mud and rocks underneath to eat. They can catch crawfish -- whatever the

Although the ibis is an omnivorous bird that eats both plants and animals, there are plenty of aquatic species, the ibis prefers a more carnivorous diet. The ibis hunts fish, insects, small reptiles, frogs, small mammals and crabs, which the ibis picks out of the mud using its long and pointed beak.



BIRD BEAK challenge

BIRD BEAK challenge

Name: _____

Name: _____

Food Type	First Attempt		Second Attempt	
	Beak/Tool	Amount Taken	Beak/Tool	Amount Taken
Rice in Clay <small>(Marsh, Sand)</small>				
Floating Straws <small>(Wire, String, Paper)</small>				
Marbles <small>(Marsh, Sand)</small>				
Rubber Bands <small>(Marsh)</small>				
Seeds				
Water <small>(Marsh)</small>				

Food Type	First Attempt		Second Attempt	
	Beak/Tool	Amount Taken	Beak/Tool	Amount Taken
Rice in Clay <small>(Marsh, Sand)</small>				
Floating Straws <small>(Wire, String, Paper)</small>				
Marbles <small>(Marsh, Sand)</small>				
Rubber Bands <small>(Marsh)</small>				
Seeds				
Water <small>(Marsh)</small>				

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Match the tool to the most appropriate food type.

Match the tool to the specific birds beak.

- Rice = _____
- Straws = _____
- Marbles = _____
- Rubber Bands = _____
- Seeds = _____
- Water = _____

BIRD BEAK challenge

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Name: _____

1. Which tool did you use to complete the activity. Can you think of a bird that uses it's beak in a similar manner?

2. Which items were you able to use and how/where they find them?

3. Which item would be the best for a bird's beak and why?

4. Describe a bird's beak as your own. How would it survive, what other uses would it have?

5. Describe a bird's beak as your own. How would it struggle to survive and why?

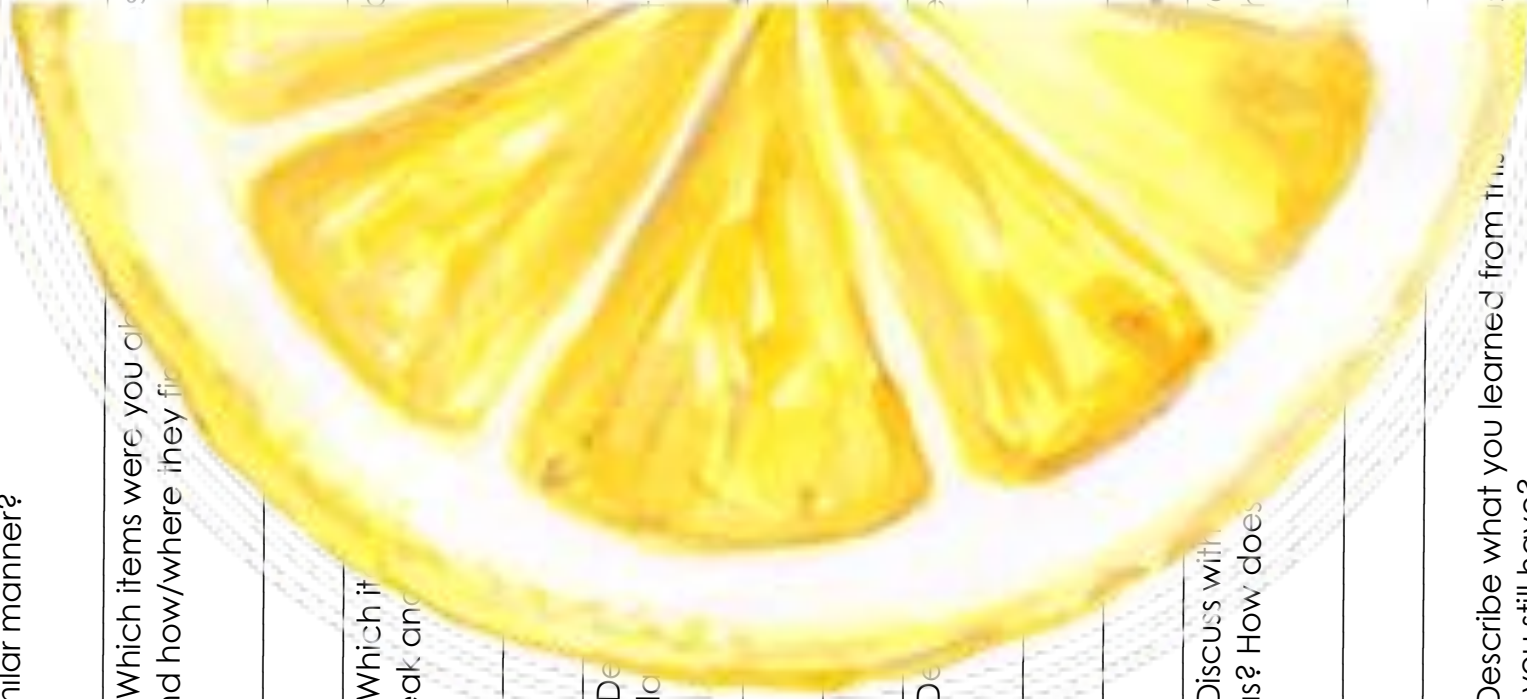
6. Discuss with a partner. Which bird was the most successful overall. Why do you think this was? How does it survive?

6. Describe what you learned from this unit using vocabulary terms from the unit. What questions do you still have?

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BIRD BEAK
C H A L L E N G E

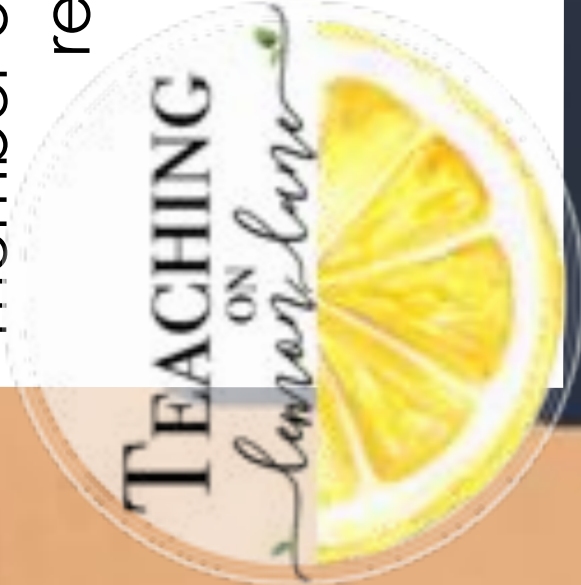
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BIRD BEAK CHALLENGE

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{GRIT} MEGA BUNDLE
CHALLENGES 1-3

Don't just talk about
**GRIT & GROWTH MINDSET...
EXPERIENCE IT!**

GRIT... then KUT IT out!

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GRIT... CHALLENGE 1... EXPERIENCE THE... GRIT

GRIT... CHALLENGE 2... EXPERIENCE THE... GRIT

GRIT... CHALLENGE 3... EXPERIENCE THE... GRIT

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