

You'll need: Balloons, craft feathers, clothespins, clear tape and markers. A Smartboard or dry erase board and dry erase markers.

Set Up: Make sure you have enough balloons, clothespins and feathers for each student in your class. Have tape and markers on hand as well.

Explanation:

- Explain to students that birds use two things to make themselves fly. The first is **lift**. When air quickly moves across a bird's wings, it creates a difference in pressure between the top of the wing and the bottom of the wing. The slow moving air under the wing wins out in the high pressure war, causing the wing (and the bird!) to rise or lift.
- The second thing that makes birds fly is **thrust**. In order to get that fast moving air on the top of their wings, birds flap them. As they push their wings down creating thrust, the air speeds up and lift takes place.
- Explain to students that they will be making their own birds using balloons, tape, feathers and markers and that they will be learning about how thrust and lift can make their birds fly, too! We're going to artificially supply our birds with some thrust and lift. It's coming from a balloon and some feathers.
- Explain that the thrust from the balloon happens because the rubber of the balloon wants to return to it's natural, unstretched state and pushes the air out. The escaping air puts a downward force on the outside air, pushing the balloon upwards. As the balloon rises from the downward thrust of the air, some fast air moves across the feather wings of the balloon giving it even more lift.
- Next, blow up each balloon, twist the neck of the balloons closed and clip each one with a clothespin. Then draw your face on the bird. Next, pick two feathers for each wing and tape ends onto balloon. We don't recommend adding too many feathers or the birds won't fly as well because they're too heavy, but it may be a good idea to allow a few students to attach a few too many in order to achieve some different results.
- Now, have each student unclip the balloon one at a time and toss it upwards in the air. Allow each student to take their own turn while the class observes.
- Allow for some class discussion while students take turns unclipping their balloons. Observe for the following discussion questions: Does the placement of the feathers make a difference in how it flies? Which works best? How many feathers does it take to make the bird too heavy to fly? What type of release gives the bird the most lift? How many birds can we fly at once?
- Students may wonder why the balloon birds do not necessarily fly straight. You can explain that in order for the bird
 to fly in a straight line, the air rushing out of the balloon would have to create a force exactly in the center of the
 balloon. But because the neck of the balloon is flexible, it wobbles with the force of the releasing air. Thus the force
 is never quite in the middle, causing it to rotate. If you put something with a bit of weight on the nose of the balloon,
 directly opposite of the neck, it will fly in a straight line. You can attempt this and repeat the activity to make other
 observations.









You'll need: A smartboard, chalk board or dry erase board with writing utensil. Students will need blank paper and a writing utensil.

Set Up: Start by making a "T chart" on the board with two headings. One column will be "Arguments Supporting Sharing Space" the other will be "Arguments Opposed Sharing Space."

Explanation:

- Explain to the class that they will be participating in a debate (when you look at both sides of an argument). Provide students time to research their topic of humans co-existing with raccoons.
- Once they have had some time to research pose the question to students "Should humans have to co-exist with raccoons?" or "Should humans have to share space with raccoons?" Explain that you will be conducting a debate first in small groups and then amongst the class and that they will be charting the various points they make for, or against, humans having to share space with raccoons. They can also consider what challenges proximity to raccoons present, and any benefits that this may have.
- In small teams have students participate in a role play debate (Humans Vs Raccoons). Students will examine different points of view or perspectives related to the RACCOON issue: Should humans have to share their space with raccoons? They will articulate and justify their position. They will record arguments in support of and opposing on a their own T-Chart.
- After this is complete, have students decide upon a side of the argument and explain that they will be creating a written outline for their argument/perspective. They will be creating a sheet with the follow headlines.
 1.)Topic Argument 2.) Their position 3.) Three supporting statements for their position 4.) Three questions for the opposition
- Tell the students that based on their stance on the argument they will be split up into two teams. Give them advanced warning that there needs to be enough people in support of and opposing, so some students may be arguing the opposite of what they believe (let them know the sign of a good debater is someone that can do that successfully).
- Once the class is split into two teams have the students use their research notes, T-charts and their written outline for arguing their position from the smaller group discussions to argue their perspectives with the class en masse. Discuss this with the class and chart the findings on the board for everyone to follow along with.
- After this large class debate ask students to reflect. Were they surprised by any arguments posed? Were any points made that they did not consider? Were they actually arguing the position they feel? Did anyone change their mind?
- If you choose to extend this activity, you may ask students to write a small essay piece arguing the position that they charted for the purposes of this debate.







Now that you've watched the Virtual Lesson. Use your keen eyesight to see if you can find all of these raccoon related words! How many can you find?

Ν	0	С	Т	U	R	Ν	А	L	Ρ	Q	С
U	А	Κ	R	А	С	С	0	0	Ν	Е	н
R	Ν	L	0	м	Ν	T	V	0	R	Е	L
В	W	А	S	Н	T	Ν	G	0	В	F	D
А	W	0	V	R	T	Ν	G	S	Κ	U	E
Ν	U	С	А	м	Ρ	T	Ν	G	м	R	N
G	А	R	В	А	G	Е	Q	D	D	U	0
Т	Α	I	L	Μ	Α	S	K	G	Т	I	Ι

Find the following words in the puzzle. Words are hidden \rightarrow and \checkmark .

CAMPING DEN FUR GARBAGE MASK NOCTURNAL OMNIVORE RACCOON RINGS TAIL URBAN WASHING

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<u>Across</u>: →

- 1. ___ CAN BE USED WHEN HUNTING RACCOONS
- 3. THIS IS THE TERM FOR THEIR NIGHT ACTIVITY
- 5. THEIR FRONT PAWS RESEMBLE THESE
- 6. THE ALGONQUIN TERM FOR RACCOON
- 8. ___ CAN LEGALLY CAPTURE RACCOONS
- 12. THESE FEATURES ARE WHITE TIPPED
- 13. RACCOONS CAN BE A NUISANCE WHEN WE ARE ____
- 14. _____LIKE MARKINGS RUN ACROSS THEIR FACES
- 16. THEY ARE WELL KNOWN FOR GOING THROUGH

<u>Down</u>: [↓]

- MUST BE ACCOMPANIED BY A LICENSED DOG
- 4. WHEN IT COMES TO DIET THEY ARE
- 7. SURPRISINGLY LOTS ARE FOUND IN THIS CITY
- 9. ____ ARE HARVESTED FROM RACCOON FOR MARKET
- RACCOONS ARE VERY CAPABLE OF THIS IN WATER
- 11. THEY ARE KNOWN TO DO THIS WITH THEIR FOOD
- 15. THEY HAVE 5 TO 10 OF THESE ON THEIR TAILS