Green All Around Us!

Age group: 2nd-6th grade Total Time: ~90 minutes total

Big Idea: The colors in nature can tell us important information about the other (living and nonliving) parts of this place!

Guiding Questions:

- 1. What shades of green do we see here?
- 2. How do those shades of green compare to other places?
- 3. What are the living and nonliving things in this place?
- 4. How might the living and nonliving things influence the greenness we see, and vice versa?

Background Information for Teachers and Parents:

In this lesson, students will explore the shades of green in their neighborhood and why they might be different. This lesson plan can also serve as a worksheet/notebook page if you have access to a printer. For younger elementary students, this lesson may require some supervision and assistance with reading/writing. If students are colorblind or vision impaired, this lesson uses relative comparisons, rather than "right" and "wrong" answers, so students may be able to do the lesson with using shades of any color they choose.

Materials needed- pencil, Greenness Color Chart, notebook, safety gear (sunglasses, a jacket, sunscreen, homemade face mask, anything else to be comfortable outside), magnifying glass (optional), access to the internet (optional)

Step 1: ~10 minutes
Invitation
What is your favorite color?
Why is that your favorite color?
Have you ever seen that color in nature before? If so, when and where?
What color do you think of most when you think of nature?
Is that color always the same SHADE when you think of it in nature? Why or why not?
Step 2: ~30 minutes
Exploration
Did any of you think of the color GREEN as the most common color? Today, we are going to be exploring the color green and its role in nature!
We are going to go outside! Be sure to check with an adult for supervision and to make sure you have
everything you need!

Create a table in your notebook that looks like the one below to take with you outside. Try to take up the whole page, and include at least 5 rows.

1. Object name	2. Object drawing	3. Shade of Green	4. Environmental Factors
<i>Example:</i> Pine needle	Ū.	Houseplant SW	

Take the "Greenness Color Chart" with you outside. Go on a walk down your block, or in your backyard. As you walk, use the color chart to describe living things you see around you that are shades of green. Fill out numbers 1, 2, and 3 in the the table for at least 5 of your favorite green things as you see. (We'll do # 4 later!) Be sure to keep the chart and your notebook with you for the next steps of the lesson!

Step 3: ~7 minutes

Concept Invention

Next, watch this short <u>VIDEO</u> about why plants are green!

According to the video, why are plants green?

If you have any questions after watching the video, list them here:

You can also read about why plants are green at THIS website!

If you'd like a deeper dive into the Greenness of Plants, here are some additional videos! <u>Why are Plants Green Part 1</u> <u>Why are Plants Green Part 2</u>

Step 4: ~15 minutes

Think to yourself: Look back on the shades of green you noticed on your walk. Were they all the same? Did similar objects have similar shades of green? What objects had the most different shades of green?

Compare your shades of green and objects to the ones listed in the photos below (I would grab some public photos from google of somewhere in the tropics, and maybe the desert, etc). How does the overall photo compare to your neighborhood? What else, (besides the shades of green) seem different? The weather? Climate? Season? Amount of sunlight? Amount of water? Notice the place names listed below the photo. You can google each of those places to see how they compare to the place that you live. (All images courtesy of Google)



Hoh Rainforest- Washington state



Owyhee Canyonlands, Idaho



Adirondack Mountains, New York

Step 5: ~30 minutes

Application

Go back outside, and list the environmental factors (like the weather, climate, season, amount of water, etc that you may have observed in the photos) that might be influencing each of the green things you see around you in the last column of the chart above.

Be sure to base this off of your observations!

Based on your finalized table,

Discuss with someone else and write down your thoughts to each of the following questions:

- 1. Do you think that the objects will remain the same shade of green all the time?
- 2. What might the objects look like in the summer? In the fall?
- 3. What if it was closer to a creek?

For a deeper dive:

How might we be able to test your answers you listed above? What type of experiment could you do to monitor the greenness of the objects?

Step 6: ~10 minutes	
Reflection:	
What was your favorite part of this activity?	
What are you still wondering about?	

Who do you want to share your findings with?_

White Willow SW 6728 Minted SW 6735	Lacewing SW 6729 Jocular Green SW 6736	Romaine SW 6730 Kiwi SW 6737	Picnic SW 6731 Vegan SW 6738	Organic Green SW 6732 Eco Green SW 6739	Grasshopper SW 6733 Kilkenny SW 6740
Enlightened Lime SW 672.	Cucumber SW 6722	Jardin SW 6723	Mesclun Green SW 6724	Pickle SW 6725	Talipot Palm SW 6726
Citrine SW 6714	Lime Granita SW 6715	Dancing Green SW 6716	Lime Rickey SW 6717	Overt Green SW 6718	Gecko SW 6719
Narcissus SW 6707	Springtime SW 6708	Gleeful SW 6709	Mélange Green SW 6710	Parakeet SW 6711	Luau Green SW 6712

Greenness Color Chart