Teaching with Cameras

Description

Why use Cameras to Teach

Todayâ€™s technology is an excellent tool for teaching students of all ages. Try using digital cameras as part of your lesson. I donâ€™t know any kid who doesnâ€™t like to take pictures, so what better way to engage students in the lesson than using a camera?

Iâ€™m all about bringing kids outside and exploring nature, but I also want to protect nature. If you have your students collect things in nature, then the things they collect are no longer there. Sometimes, a lesson requires you to collect things, but most of the time, you should be observing nature. A camera allows them to share what they saw with others or to prove that they did the activity you want them to do.

If students take their pictures to put into their reports or projects, then the project or report will have more meaning to the student than if they found pictures online to use. Taking photographs helps students remember their experience more than just seeing it alone. It also allows them to look more closely at nature and analyze what they see. Students then ask more questions about what they see and create those higher-level thinking experiences we want for students.

Buying Cameras for the Classroom

The cameras used in class should be digital, durable, easy to use, and rechargeable. The digital feature is significant because the kids can immediately see what they took a picture of and decide to delete or keep it. The teacher can also see the photographs immediately to ensure they do the assignment correctly. Printing your photos is not necessary. Instead, you could download them into a slide show to share and write about what you learned.

The cameras should be durable or shockproof because kids will drop them. It doesnâ€™t matter how much you talk about being careful; they will still drop them. A strap around their neck might be a good choice to help prevent slipping out of a small hand and the camera from falling to the ground. You still want a durable camera because kids are rough on things.

Easy-to-use cameras or kid-friendly cameras are essential. You donâ€™t want to spend long explaining how to use the camera with different settings. The more types of settings a camera has, the more chance kids will mess with the settings and possibly break the camera.

It isnâ€™t necessary to buy enough cameras for everyone in the class to have one. Kids can share the camera. If possible, buy enough for every pair of students to share one. If that is not possible, then every three kids can share one. Another possibility is having a complete class set that the school or a grade level can share.

Camera Ideas

I looked at many reviews of cameras to find ones that would be reasonably priced and durable. I picked point-and-shoot, shockproof cameras that could transfer the pictures using Wi-Fi, USB cable, or SD card. I also looked at waterproof and dustproof qualities in cameras. I stayed away from the instant print cameras because the film to print gets expensive. The following are the ones I thought would be suitable for students to use and these are paid affiliate links. If you buy any of these cameras from these links, I get a small percentage of the purchase to help support my blog.

Kodak Pixpro WPZ2 Digital Camera costs around $128 at Amazon. Its features are waterproof, shockproof, dustproof, Wi-Fi, 16MP, 4x optical zoom, 1080P full HD video vlogging, and 2.7â€³ LCD.

Tupsio 8K UHD 70MP Digital Camera costs around $99 at Amazon. Its features are waterproof up to 33 feet underwater, dustproof, 4-foot shockproof, and autofocus point-and-shoot digital camera. This camera also has dual screens, one on the front and one on the back. It comes with a 32 GB storage card. The battery can last for 2.5 hours of continuous video recording if that is something you want in a camera.

Nawchedo 4K UHD 48 MP Digital Camera costs around $79.88 at Amazon. Its features include waterproofing up to 33 feet underwater, dustproof, 4-foot shockproof, autofocus, point and shoot, dual-screen display, built-in stabilization, anti-shake, video records, time-lapse, self-timer, fill light, and 18x zoom. It has a 32 GB card, type-C cable, lanyard, and storage bag.

These cameras all seemed very durable and also took a decent picture. Many cameras on the market cost less, but they didnâ€™t seem as durable. You can choose a cheaper camera, but then you might be worried about the students breaking them easier. I did find one camera that was less expensive and had good reviews. It doesnâ€™t have the shockproof, waterproof, or dustproof features the others do, so donâ€™t use it around sand or water, and donâ€™t drop it from 4 feet onto a hard surface.

Fleafer Upgrade Digital Camera with 56MP FHD 1080P Camera for Kids costs around $35 at Amazon. This point-and-shoot camera has the following features: anti-shake, 16x zoom, self-timer, continuous shoot, video recording, and a large LCD display. It has a USB data cable to transfer pictures to a computer quickly. It also has a 32 GB card, two batteries, a lanyard, a storage bag, and a one-year warranty.

Lesson Ideas Using a Camera

The possibilities are endless for using cameras as part of your lessons. I will focus on nature-related activities, but many of these are available in other ways. Students can use cameras in all different subjects, such as language arts, math, science, and social studies. I will continue to add ideas to the following list, so check back periodically to see what is new in this section.

Writing Activities

ABC Book or Slideshow

Preschool up to high school can participate in this learning activity. Modifying it for different levels is easy. Consider the unique needs of students and adapt this to fit their level. Have students partner up to help those challenged by the activity or who need more support. The ABC book could be a group project, where each student is assigned a different letter to focus on in the book. If printing is unavailable, you could do a slideshow instead of a physical book.

Start the activity by reading an ABC nature book to your class or child. Here is a link to a video of an ABC nature book. Listening to a story in a similar format will get students thinking about what they could photograph outside in nature. Then, brainstorm with partners and/or as a whole group for different ideas for each alphabet letter. Then, take the students outside in nature and allow them to take photographs of things they see that could represent a letter of the alphabet. Some letters in the alphabet are hard to find things in nature that start with that letter. If students struggle with a particular letter, have them make it with natural things, such as sticks, rocks, shells, acorns, or leaves. Then, they can take a picture of the letter they made.

Another version of this book could be to make all the letters out of things in nature and take pictures of them for the book. This option might be good for places that donâ€™t have access to a lot of nature. You could bring things to the classroom for them to do this activity.

Here is a link to a basic nature ABC book or slideshow I made that you could use as an example with your students.

PDF version ABCâ€™s of Nature one word

Power point version ABCâ€™s of Nature one word

Examples For Each Letter in Nature

- A = acorn, apple, arachnid (spider), animal tracks, and ants
- B = berries, beetle, bug, bark, butterfly, bird, burdock plant, boulder, beehive, beach
- C = clouds, conifer tree, clam, cave, canyon, cactus, cattails, clover
- D = deer, dirt, dandelion plant, duck, duckweed, driftwood, dew, decay, dragonfly
- E = eggs, eagle, evergreen tree, elm tree
- F = frog, flower, fungi, fog, fossil, forest, fly, fish, feather, fruit

- G = grass, grassland, grasshopper, great blue heron, goldfinch
- H = heartwood, helicopter seed, hummingbird, hole in a tree or the ground
- I = insect, ice, island, icicles, inchworm
- J = jellyfish, June bug, juniper tree
- K = kingfisher, kestrel,
- L = leaf, log, ladybug, lake, liquid, lily pad
- M = milkweed plant, mushrooms, maple tree or leaf, moss, marsh, meadow, millipede
- N = nest, nuts, nymph,
- O = oak tree, oak leaf, owl,
- P = pine tree, pinecone, plant, petal on a flower, pollen, poison ivy, prairie
- Q = quail eggs, quaking aspen tree, Queen Anneâ€™s Lace plant
- R = rock, river, roots, rain, ravine, robin, reflection
- S = stream, sapwood, spit bug, stick, stink bug, stick bug, snail, snake, shell, seed, sand, swamp, shadow
- T = tree, toad, turtle, tracks, trail, trunk
- U = urchin, undergrowth, underwater, Ursa Major (big dipper), Ursa Miner (little dipper), underground animal home
- V = vine, vegetation, vulture
- W = water, waves, wind (plants bending to show it), white pine tree or needles, waterfall, wetland, worm, web, woodpecker, willow tree, woods
- X = xylem (a part of the inside of a tree trunk)
- Y = yellow warbler, yellow jacket
- Z = zebra mussels, zinnia flower or plant

Adjectives

Rough or Bumpy

Please take pictures of things in nature and then develop a word or words that describe it. Then, you could turn this into an ABC adjective book using adjectives as the alphabet letter instead of the object.

Descriptive Writing

Have students take three pictures in nature and then write about just one of those pictures. Have the students read what they wrote to the class and show all three pictures. Students should label the photos with a letter or number. Next, the other students had to guess which picture corresponded with the writing. Students could write the letter or number of the picture they think is correct on a whiteboard or piece of paper. Then, have some students explain why they picked the picture they did to the class or do a partner activity describing why they chose a particular picture. Finally, have the student who

shared their writing tell which picture was correct.

Fiction Writing

Students will take pictures of different things in nature. Then, they pick one of the pictures to write a fiction story. For example, the picture could be of a mushroom, so that mushroom comes to life in the forest and has to figure out a type of problem. To make it more challenging, each picture the student took needs to be a part of the story. If there are three pictures, then one is about the beginning, another is about the middle of the story, and the last one is about the end of the story.

Compare and Contrast

To learn about compare and contrast, students should find two things to take pictures of in nature. Then, have them do a Venn diagram to compare and contrast the two images. Then, they could write a paragraph about their similarities and differences.

Wonder Statements

Have students take pictures of things they wonder about. Then, have students write a question about the picture or a wond

Words or Letters

Practicing words such as spelling or high-frequency words by using things in nature to make the letter. You could also do this activity to practice the letters they are learning. Then, they could take a picture of their word or letter after making it. This way, you donâ€™t have to monitor whether they are doing the activity correctly because they need to take a picture of each word they do. Some things in nature that might be easy to make words with are acorns, pine needles, leaves, rocks, sticks, and maple seeds or helicopter seeds. Think of things that you find on the ground outside to use.

Letter sounds

An activity you could do with your child or students is to find things in nature that start with the sound of a specific letter they are learning. I would only choose letters that are easy to find things in nature that begin with that sound, and they might know the names of the objects.

Another way of doing a letter sound activity is to let them take pictures of things they see in nature. Later, you can have students review what they took pictures of with you. Have them name objects in the image and the wordâ€™s beginning or ending sound.

Math Ideas

Numbers

Seven

If youâ€™re working on numbers with your child or students, they could take pictures of that many objects in nature. For example, put five rocks together and take a picture to show the number 5. Take a picture of 2 trees next to each other for the number 2. Another idea is to use flowers for a number. Think of things that might already be natural for different numbers. Things like insects have six legs or three body parts, while spiders have eight legs and two body parts. Both of these could also be pictures for different numbers. Some other number ideas could be two wings, five petals on a flower, 7, 5, 10, and 12 leaflets on certain trees, and five needles clustered together in a white pine tree. You could then have students write a caption to go with their pictures. You could have students show number problems with their pictures and then show one of their number pictures to answer the problem.

One

Two

Five

Eight

Shapes

Please take pictures of things they see that are similar to a shape. Some 3D ideas could be a berry as a sphere, and a log could be a cylinder. Some 2D ideas could be a tree cookie as a circle, a basswood leaf that looks like a heart, a flower that shows a circle, and a bug that might be a triangle or rectangle. After students find things in nature that look similar to a 2D or 3D shape, they can photograph it and then draw the shape the picture represents. Finally, they could write the name of the shape. A way to adapt this activity is to give them a picture of the shape, and they lay it next to the object they think looks like it. Then, take a picture of both together.

circle


circle


circle


circle

Symmetry

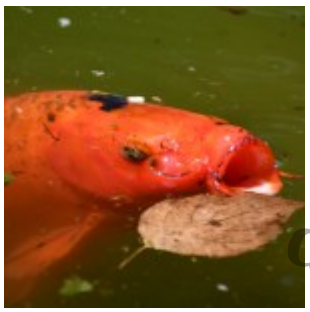
Most things in nature have at least one line of symmetry. Have students take pictures of things in nature with at least one line of symmetry. You could print the images and have students draw all the lines of symmetry.

Science

Have students take pictures of living and nonliving things. Then, they can sort a picture with all the photos they took. They could also sort the images into two slides in a slideshow if you donâ€™t want to print them. Students can also partner up and swap pictures to sort.

Students could take pictures of animals from different animal groups, such as mammals, fish, reptiles, amphibians, and birds. The photos show that they understand each of the animal groups. The pictures could also be of invertebrate and vertebrate animals or plants versus animals. Then they could sort those as well.

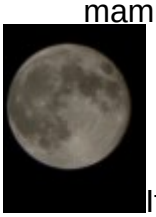

bird


fish


reptile


amphibian

mammal

 If you are studying moon phases in class, students could take pictures of them at home with their parentâ€™s help. Then, create a book using the images and name the different phases.

If your class is learning about clouds, the kids could take pictures of different clouds they see. Then, they could try to figure out the name of the clouds in their photographs.

Landforms

Have students take pictures of different landforms such as cliffs, islands, hills, valleys, rivers, lakes, waterfalls, peninsulas, and plains, to name a few. Then, make a poster or book about landforms using those pictures. Make sure to label each one according to the landform type. A slideshow is an alternative for students to show what they know. If students donâ€™t have access to certain types of landforms to take pictures, it could be hard for them to do this activity. So the students could find photos from other places to supplement their project. Turn the landform activity into a scavenger hunt to see how many students can find with their families over a weekend. They could use their camera or family phone to take pictures and email them to the teacher.


cliff


waterfall


river


cave

Vocabulary

Think about what you are teaching for vocabulary. Then, see if taking a picture to show that terminology will work. Be creative with how your students can show what you are teaching them.


Mutualism

An example could be if you are talking about a biology concept such as symbiosis in class. Then, challenge students to go out into nature and take a picture of something that shows this concept. It could also be more specific in the type of relationship the organisms have with each other, such as mutualism (both organisms benefit), commensalism (one organism benefits and the other are not affected at all), and parasitism (one organism benefits and the other are harmed).


Erosion

Some other vocabulary that students could find to take pictures of are consumer, producer, decomposing, and photosynthesis. The concepts of kinetic energy and potential energy and weathering or erosion could also be a possibility.

Nature Journal

When writing in a nature journal, you could also take a picture to add to your journal entry. Check out my nature journal post to learn more about nature journal ideas. Check out my post on how to make your nature journal.

Senses

When sitting outside using your different senses, you could also take pictures of what you see, hear, feel, and smell. I would avoid using my sense of taste. I would first do the activity without taking pictures and then take photos of the things you felt, smelled, or heard after sitting quietly for a while. For ideas on using your senses in nature, visit my post on senses.

Family Vacation

Many students miss school for a family vacation. Challenge students on vacation to take a picture of something they did each day and write about it in a journal. Then, when they return, they can share their photos and writing.

Hikes

Take pictures of signs of animals such as tracks, rubbings, scat, and a nest. These are nature items that you canâ€™t take with you. You could also have your kid, or students do a scavenger hunt on a hike and take pictures of what they find to prove they found it.

Category

1. Education
2. Hobbies

Tags

1. #camera
2. #cameras in education
3. #cameras in the classroom
4. #kids and cameras
5. #nature photography
6. #nature pictures
7. #pictures
8. #taking pictures

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