

Signs of Spring



Signs of Spring and Soil Snoops Kindergarten

Learning Outcomes

Grades K-1 life science

- identify characteristics of each season (spring)
- identify the living and non-living materials found in soil

When

These activities work well split up into separate excursions. All are best done in May or June. Later in spring is generally better, for maximum plant growth, bird song and active soil animals. Morning is best for maximum bird song. Soil Snoops and Soil Blanket could also be done later in the fall, after the rains have moistened the forest floor and creatures have become active after their summer sleep.

Total Materials List

- rainbow chip cards
- plastic spoons
- yogurt cups

Activities

1. Rainbow Chips



Where:

The rocky bank behind the school. If this is too steep for your preference, choose another sunny area with a few small flowers and a variety of plants.

Time: 15 min

Why:

Find signs of spring, practise an observation skill (colour matching), and discover differences between plants.

Materials:

A bag of 25-30 Rainbow Chip Cards

How:

This is a participatory story-based activity, so have fun with it. The basic story is below, but feel free to add, subtract and change the story to fit your own style.

“Well, it was about a week ago, and I was coming back to the school after a walk in the park. As I walked, I looked up at the sky. It was mostly blue, but some dark clouds were gathering.

“I hurried along, hoping I wasn’t going to get wet, but then a breeze came up (make a breezy shhhhh sound with your mouth) and that breeze pushed the clouds in front of the sun. It began to get darker and darker—and then I heard a sound like this (click your tongue to make the sound of a fat raindrop hitting the ground)—then another, and another (make the sound each time). What do you think that sound was? (Help them identify rain).

“That’s right, it was beginning to rain. (Get the class to help you make the rain sounds.) Then it began to rain a little harder (increase the tempo of clicking)



Salmonberry Blossom



BICS Teaching Trails

Colour Hints

- Look closely at everyday things for colour surprises.

Tip of a Hemlock shoot



- Tiny things have big colour

Huckleberry flower



- Leaves have lots of colour

Caterpillar on an Alder Leaf



and harder (increase the tempo to very fast clicking) and then the rain just poured down (change from clicking to slapping your knees with your open palms) and the wind was blowing (get everyone to make swishing sounds with their mouths while still slapping their knees) and the thunder went crrrrashhhhh. And I got really wet.

“But then, the rain slowed down (slow down the thigh slapping and not as loud) and slo-o-owed down (slow down more and change to tongue clicking) until all just the last few big raindrops were falling. Then the breeze came back (shhhhhh) and blew the dark clouds away, and the sun came out, and there was a beautiful ... (pause, make a wide, sweeping motion with your arm over top of the students)... until

someone calls out ... “rainbow!”

“That’s right! It was the most beautiful rainbow I had ever seen. Every colour seemed twice as bright as normal. I was standing there admiring it when I saw a robin flying up towards the rainbow. It flew closer and closer, until—SMASH! —It crashed straight into the rainbow! And the rainbow broke, and shattered into a thousand pieces. And all the little brightly coloured pieces of the rainbow came sprinkling down around me (hand motions with wiggling fingers) as I stood there dripping wet.

“And as I looked, they started to melt away into the colours of nature—the green of a leaf, the pink of a bud, the yellow of a flower. But I ran around and collected as many rainbow chips as I could find before they disappeared, and I glued them onto cards and put them in this bag.”

Show them what a rainbow chip card looks like, keeping the story spirit going. Tell students that they are going to do an experiment to see if the rainbow colours are still out there in nature. Each student will get a rainbow chip card, and their job is to match the colours on it (exactly) with colours in nature. The best way is to hold the rainbow chip card down beside plants and rocks, and to compare them side-by-side. Demonstrate, and remind them



about no picking. When they match a colour, they must show it to you or to an adult in the group.

Set the boundaries, such as halfway up the bank only. Remind everybody that they must return to you when you call, and let them put their hands in the bag one at a time to pick a card. Then mingle, admire or ask for better matching (you don’t want just any old green—you want the exact shade of green) and give the hints below.

Where to Find Colours:

- buds and stems are often good for pinks and purples
- inside or under flowers
- rocks can be good too
- “If anyone is looking for blue, look up.”

Be prepared to gently remind children about the no picking rule if they pick a leaf or flower. “That’s a perfect match, John, but do you remember our rule about picking? Why don’t you find a nice stump to put that flower on—maybe a squirrel will eat it for dessert.”

Proceed until most students have found their colours. The number of colours that they find may surprise you. Some students may breeze through and finish before the rest. Consider trading them for a new rainbow chip card or ask them to find someone who isn’t finished and give them a hand.

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Sum Up:

- Call everyone together.
- Have them call out some of the colours that they have found.
- Which were easiest? Hardest?
- “So what have we learned? Are there rainbow chip colours out there in nature?”
- Admire their work so far, and suggest that you will have to find them a more challenging activity next.

(Activity adapted from Steve Van Matre's *Acclimatization Walks*)

Next Stop:

Walk down the service road and turn right to enter the Snake Field (actually, snakes are not commonly found here).

2. Counting Sounds

Where: Snake Field

Time: 10 minutes

Why:

Another observation skill, awareness of bird communication

Materials: none

How:

Explain that this is the spot to listen for signs of spring. Ask them to watch you first, and then afterwards do it with you.

Demonstrate:

“To be able to hear signs of spring, we need to be quiet ourselves. So, everyone stand perfectly still and freeze your feet to the ground so there is no rustling and scraping.

“Next, close your eyes.

“Then cover your ears with your hands and rub.

“(Whisper) And finally, gently lift hands away from ears and let the forest sounds flood in. Count the different kinds of sounds you hear on your fingers.

“Now, follow along with me as we count the different sounds we hear.” Carry on, whispering as needed, pointing and raising your eyebrows as young eyes open, and generally keeping them quiet and focused until most hands have a few fingers up.

Listen for:

- various bird songs and calls
- wind in the trees
- woodpeckers
- crows cawing and ravens croaking
- children laughing and playing (we're part of nature too)

Three? More?” Ask for examples, and discuss each as a sign of spring.

- Birds return from the south to join the ones that have been here all winter. All of them look for a mate to raise a family with, and singing is one of the ways they find a mate.
- Wind is blowing away the clouds so we can see the sun and the blue sky.
- Woodpeckers knock on wood to call for a mate too.
- Crows and ravens live on Bowen year round, but in spring they call more (see above).
- Children play outdoors in spring, because it's a wonderful place to be.

Next Stop:

Walk into the forest from far upper corner of field. Take the right-hand fork to follow the trail until you can see plenty of big logs on your left.



Northwestern Crow

“How many people heard more than two sounds?”



BICS Teaching Trails

3. Soil Snoops

Where:



Step off the trail to your left, ideally where the big logs act as natural boundaries.

Time: 20 min

Why:

Soil learning outcome plus concept of soil having different layers, and soil being continually made by creatures, like composting.

Materials:

- a plastic spoon for each child.
- enough yogurt cups for each child, pair or group.

How:

The first step is an experiment to find out if soil is hard. Ask all students to take a big jump, and to feel the ground with their feet when they come down. "Hands up those who think soil is hard. How about soft? Spongy? Bouncy? Let's try it again." Discuss with the class. If it's not hard, what is it?

The next step is to find out if soil is muddy. Ask everyone to pick up a little handful or pinch of the ground in front of their shoe. Ask for students to describe what they picked up (leaf litter layer: cones, needles, twigs and bits of dead wood). "Is this soil?" It's part of the soil—the top layer.

Put the little handful of top layer to one side, and ask each student to come and get a soil scoop (plastic spoon). Students are to dig a little hole where they took the top layer from to find out what's underneath. "Is it different from the top layer? What did you find?" Generally, students will find another layer of soil that looks more as we expect soil to look like. The point here is that as the top layer piles up, it gets changed into the underneath layer by soil creatures.

Now pass out the yogurt tubs (one per child, pair or group). "Let's investigate the creatures that make the soil. Look for creature homes under things, in rotting wood and in holes to find as many different

kinds of soil-makers as you can. Pick them up gently with your soil scoops, (fingers are OK too), and put them in the yogurt tub. And remember where you found them, because later you will put them back in their homes! "

The creatures you find on Bowen will all be safe to handle. Should you feel squeamish, please try to hide it, or this activity will not succeed. You can always use a tiny twig to stroke a creature's back, with the explanation that you're afraid your big fingers could hurt it.

Look for: (See *Soil Creatures* on facing page)

Wood Bugs (friendly, gray and slow, armoured, lots of legs. Related to sea creatures like shrimp, they like to live in dead wood)

Millipedes (slow and friendly, black and yellow or brownish-grey if young, with even more legs. If you shake a black and yellow one like a pair of dice, it will give off a pleasant almond odor that students can sniff—it's protection against being eaten.)

Slugs (if you gently stroke a slug's back, you get SLUG POWER, and can pick up small twigs and even cones by touching them from above—the mucus acts like strong glue)

Earthworms (they eat fallen leaves and top layer litter, like wood bugs, millipedes, and slugs)

Ground Beetles (black, slow, 3 body parts, only 6 legs, predators)

Spiders (good luck catching any, you know how many legs)

Centipedes (reddish-brown, lots of legs, fast and predatory. These can bite, although it's never happened with me. Children are naturally cautious about them, not to worry.)

The smooth sides of the yogurt cups generally contain most of these creatures. If any child is unsuccessful in catching creatures, ask them to pick up a spoonful of soil and look for tiny tiny creatures in it. There will be hundreds in the spoon, even though they may be so small that they can't be seen. No need to pick them out.

At some point, call everyone together to share their findings. Perhaps groups will show each other their catch, or adults can carry the tubs around the circle so everyone can see and admire.

Key Points: These creatures are part of the soil, and they are constantly changing the soil by composting the top layer. They eat it, and their droppings are partly what makes up the darker, crumbly underneath layer of soil. Then growing plants (recycled) can use the soil.

Next Stop:

Continue along the trail to the smooth "sliding rock" outcrop on your right.

Signs of Spring



Soil Creatures



Slug



Earthworm



Ground Beetle



Land Snail



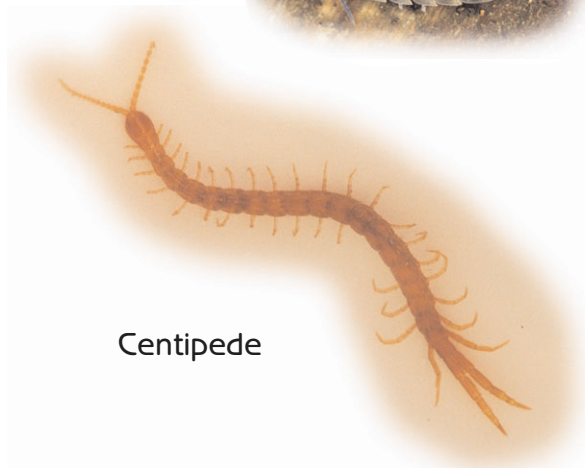
Spider



Woodbug



Millipede



Centipede



4. Soil Blanket

Where:

Leave the trail and venture uphill beside the sliding rock to the top.

Time: 5 min

Why:

Concept of bedrock, and soil covering the earth like a blanket.

Materials: none

How:

This is a quick stop to answer the question “is this rock part of the soil?”

To help answer it, ask, “what did we learn about soil last stop?” Follow their answers by jumping, touching the rock in front of their toes, etc as per the last activity. (They discovered that soil is not hard, it’s made of different layers, and it’s always changing, it’s composed of living and non-living materials). Could this rock be soil?

The answer is no, this is bedrock sticking up from under the blanket of soil.

Now head back to the school. It’s in sight ahead of you.

That’s it for the Kindergarten Teaching Trails activities. Hope you enjoy them!