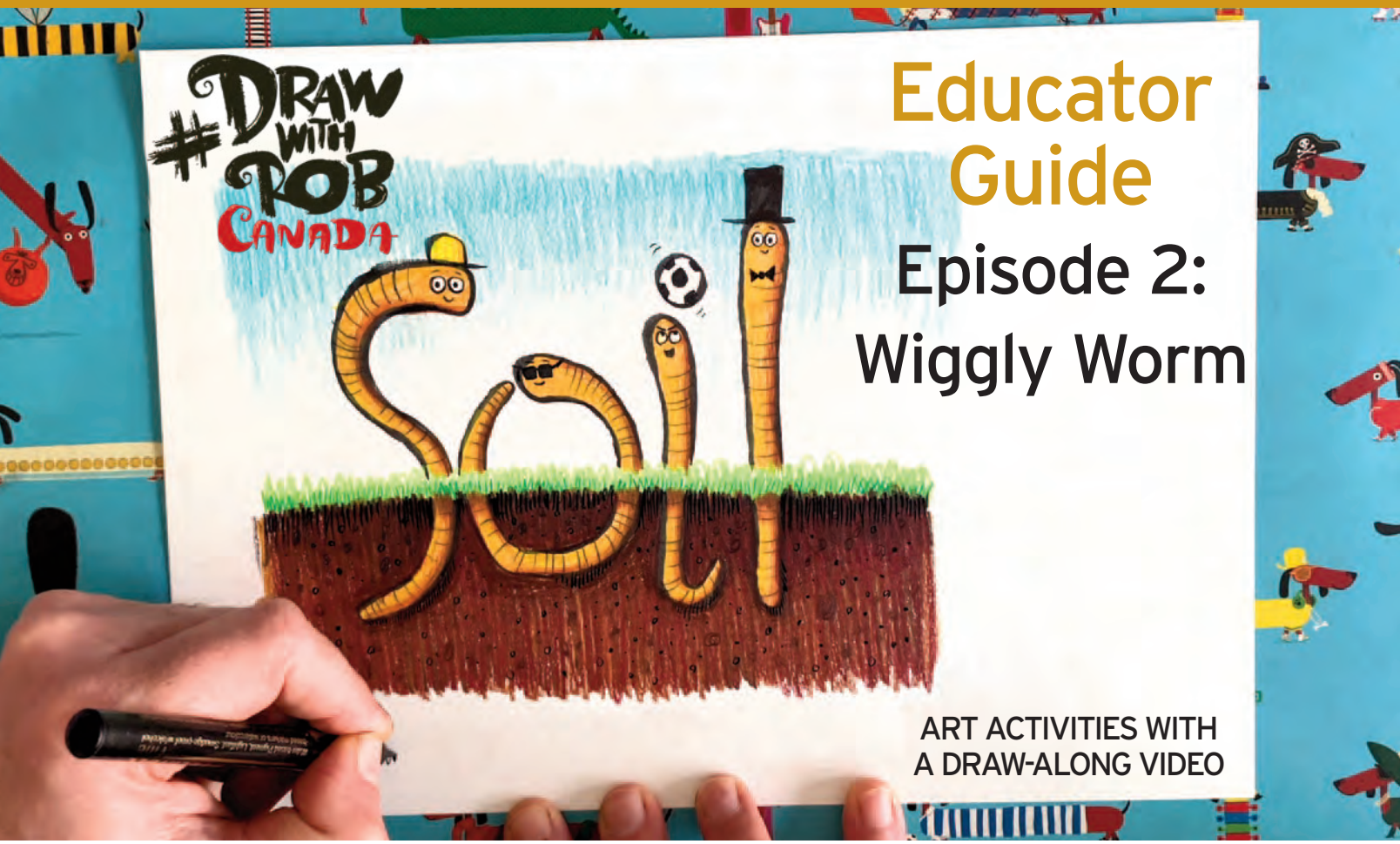
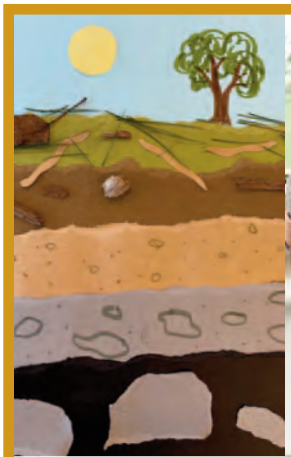
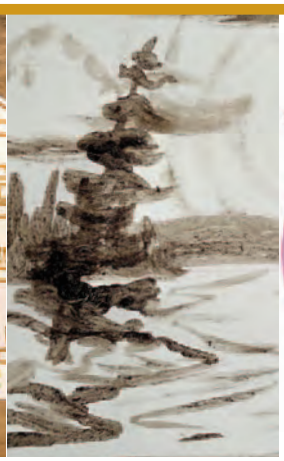


Educator Guide

Episode 2: Wiggly Worm

ART ACTIVITIES WITH
A DRAW-ALONG VIDEO





GOOD in every GRAIN

CANADA AGRICULTURE AND FOOD MUSEUM
MUSÉE DE L'AGRICULTURE ET DE L'ALIMENTATION DU CANADA

www.GoodInEveryGrain.ca/draw-with-rob

THIS PUBLICATION IS produced by Grain Farmers of Ontario in partnership with Canada Agriculture and Food Museum, with special thanks to Rob Biddulph and Jodie Hart (artist/art educator) for their involvement.

Good in Every Grain is Grain Farmers of Ontario's public outreach campaign, which aims to tell the story of agriculture and grain farming to educators and students across the province. Grain Farmers of Ontario is a not-for-profit organization representing 28,000 barley, corn, oat, soybean, and wheat farmers in Ontario, Canada.

679 Southgate Drive, Guelph, ON, N1G 4S2
Tel: 1 519-767-2773

https://goodineverygrain.ca

CANADA AGRICULTURE AND FOOD MUSEUM
MUSÉE DE L'AGRICULTURE ET DE L'ALIMENTATION DU CANADA

The Canada Agriculture and Food Museum is a working farm in the heart of Ottawa. It offers visitors a unique opportunity to explore agricultural science in action, to see diverse breeds of farm animals and to learn about where their food comes from. The museum is a part of Ingenium – Canada's Museums of Science and Innovation.

P.O. Box 9724, Station T, Ottawa, ON, K1G 5A3
Tel: (613) 230-2770 ext. 2000

https://ingeniumcanada.org/agriculture

Rob Biddulph is a bestselling and multi award-winning children's author/illustrator whose books include Blown Away, Odd Dog Out, and Kevin. In March 2020, he started #DrawWithRob, a series of draw-along videos designed to involve children were forced to stay home from school due to the pandemic. It has garnered international media coverage and millions of views across the globe

http://www.robbiddulph.com/draw-with-rob

WELCOME EDUCATORS!

This guide was developed for educators, families and community leaders to accompany Rob Biddulph's Draw with Rob video Wiggly Worms released on April 19, 2021. See the video at www.goodineverygrain.ca/draw-with-rob

We developed these videos and subsequent activities to help elementary students explore their artistic creativity and grow a lifelong awareness of local farming, food origins and nutrition. Exploring science through art is like creating a portrait; the artist strives to understand the subject and then renders it in their medium of choice.

Rob's narrative and the characters he creates help students explore wiggly worms and how they help to keep our soil healthy.

OVERVIEW

This is one of three art-based resources to support learning about science through art. Each resource is based on a Draw with Rob video and includes engaging art projects through which students will explore the themes of plant growth, soil health and farm technology.

- **Episode 1 Magic Beans.** Draw sleepy soybean characters in and out of their pod and learn about plant growth and the many uses of soybeans.
- **Episode 2 Wiggly Worm!** Wriggly worms help teach students about soil health and their community of organisms.
- **Episode 3 Tractors in spaaaace!** Students will draw a tractor and learn about farming technology, including satellite guidance.

TABLE OF CONTENTS

Wiggly worm!

ACTIVITY 1

RECOMMENDED GRADE LEVELS: 1 – 4

TIME: 20 - 30 minutes

BRIEF DESCRIPTION OF ACTIVITY: Students will draw along with the video to create a picture of worms that help the soil. And they can spell!

KEY CONCEPTS: repetition, form (drawing shapes), worms and their importance to soil.

RELEVANT ARTS CURRICULUM: D1. Creating and Presenting; D2. Reflecting, Responding, and Analysing; and Principles of Design: Repetition and Rhythm.

SUPPLIES

- access to video and ability to display it to the class
- paper and materials for drawing (pencils, crayons, markers)

RESOURCES

Video:
Wiggly Worm!

Link: https://goodineverygrain.ca/draw-with-rob/

INSTRUCTIONS

1. **Watch Draw with Rob – Wiggly Worm! with your students.**
   As needed, pause the video to expand on the importance of earthworms and allow students to catch up.

   For younger students, teachers may wish to provide information about earthworms and soil health themselves and advance the video after the introduction to timestamp 3:19 where the drawing instruction begins.

DID YOU KNOW?

Earthworms do not have lungs, but still need oxygen to live. They "breathe" through their skin! When it rains, their tunnels flood and worms risk drowning if they don't come to the surface. That's why worms pop up all over the sidewalk on rainy days!

TEACH MORE ART!

Rob Biddulph writes and illustrates children's books. Jillian Tamaki is a Canadian who does the same job – she wrote and illustrated *They Say Blue* and *My Best Friend*. You can see her books and art at www.jilliantamaki.com. She also provides information about drawing.

OUTDOOR LEARNING

After students have watched the video and drawn their pictures, head outside with drawing materials to draw characters based on things they find in the soil—pebbles, plants, maybe even a worm!

Soil collage

ACTIVITY 2

RECOMMENDED GRADE LEVELS: 2 – 3

TIME: 45 minutes

BRIEF DESCRIPTION OF ACTIVITY: After reviewing soil layers and their contents, students will create a collage from paper and found materials.

KEY CONCEPTS: Collage, soil layers.

RELEVANT ARTS CURRICULUM: D1. Creating and Presenting; D2. Reflecting, Responding, and Analysing.

SUPPLIES

- Construction paper (blue, black, grey, light brown, dark brown, green)
- scissors
- glue
- natural materials (found outdoors)
- markers and other drawing materials

RESOURCES

The Story of Soil (page 25) and article titled *Soil*

Link:
thecanadianencyclopedia.ca/en/article/soil

INSTRUCTIONS

1. **Discuss soil layers.**
   The collage will represent the elements of bedrock, parent material, subsoil, topsoil, humus.

2. **Create the layers.**
   Use the blue construction paper as a background. Tear or cut strips of the other colours to represent the soil layers. Bottom to top: bedrock – black; parent material – grey; subsoil – light brown; topsoil – dark brown; humus – green.

3. **Use drawings and natural materials (found outdoors) to represent what is in each layer.**

   Bedrock – large rocks; parent material – weathered rocks; subsoil – sand, silt, clay; topsoil – minerals, decaying matter, plant roots; humus – living and decaying material, plants, moss. Encourage students to be creative in what they add.

4. **Once collaged elements are included, add a scene to the top blue area with trees, flowers, insects, children playing.**

DID YOU KNOW?

Healthy soil is important for having safe water. Farmers play a crucial role in that by using sustainable practices like planting cover crops and natural field edges on their fields to prevent soil erosion and using less chemical fertilizer that can run off into waterways.

TEACH MORE ART!

Look at the work of Canadian artist Raku Inoue. https://reikancreations.com/. He uses natural elements, especially plant material, to create beautiful collages. After viewing Raku's work, students can create their own collage from found materials.

OUTDOOR LEARNING

Dig a hole and observe what is found in the topsoil and subsoil layers.

Students can record what they find by writing a description and adding illustrations.

Earthworm habitat

ACTIVITY 3

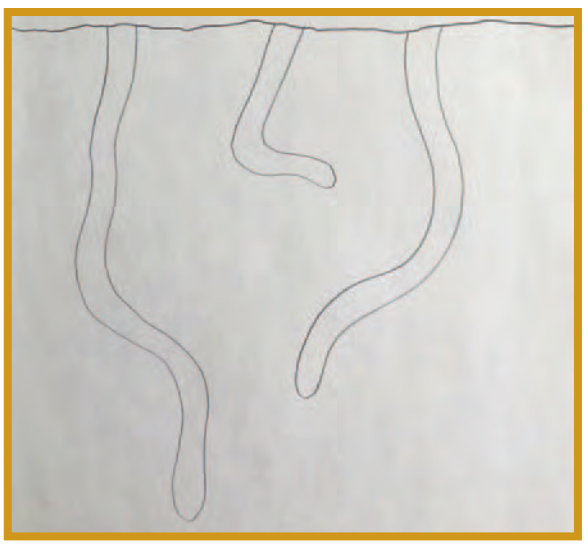
RECOMMENDED GRADE LEVELS: 3 – 4

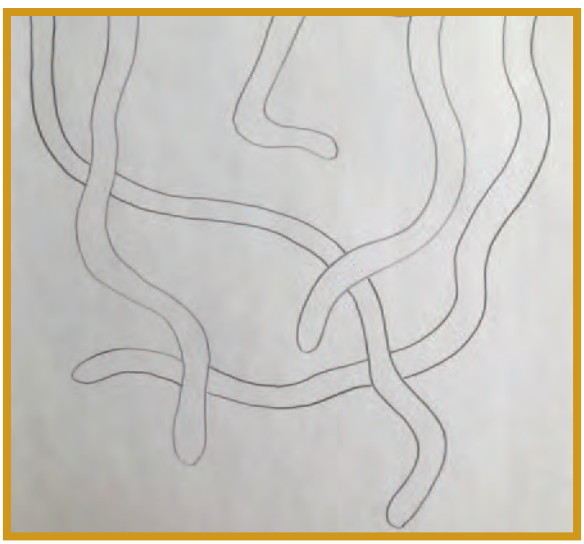
TIME: 40 minutes

BRIEF DESCRIPTION OF ACTIVITY: Students will be guided to draw underground earthworm tunnels that overlap and show how worms benefit the soil.

KEY CONCEPTS: Creating depth in visual arts. Students will be challenged to think three-dimensionally as they draw some tunnels close to the viewer and others farther away.

RELEVANT ARTS CURRICULUM: D1. Creating and Presenting; D2. Reflecting, Responding, and Analysing; and D3. Exploring Forms. Principle of design: contrast.





SUPPLIES

- paper
- pencils
- markers
- a colour medium, such as crayons or markers, to add colour if desired

RESOURCES

The Story of Soil (page 25)

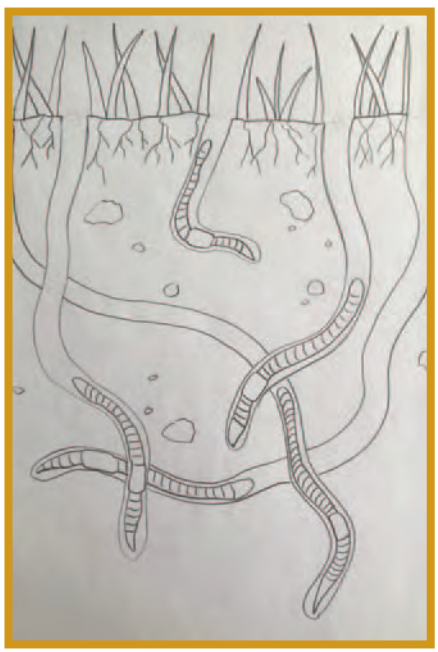
INSTRUCTIONS

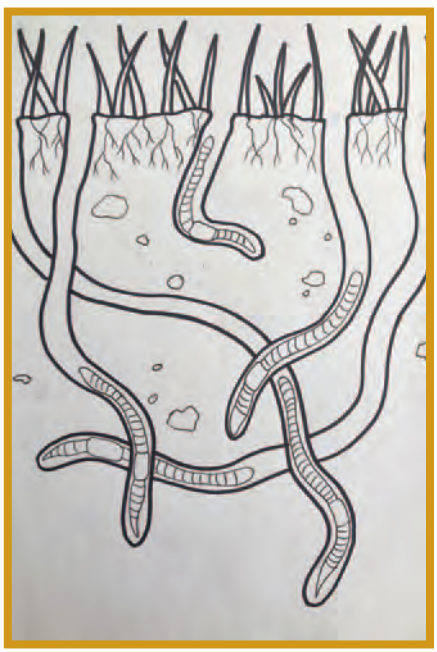
1. **Discuss earthworm activity and how earthworms can help the soil.**

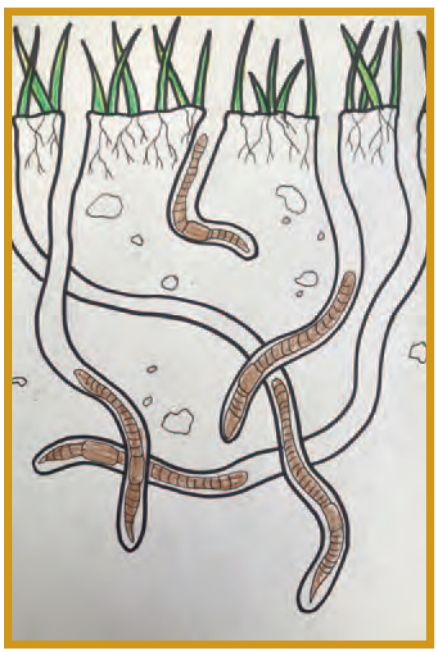
2. **Demonstrate each step, but give students the opportunity to be creative.** The concept of overlapping may be tricky. Position paper in the portrait format for maximum underground. Draw a line near the top to show ground level.

3. **Create tunnels. Stage 1: tunnels close to the viewer.** Start at the ground line; draw 3 tunnels going down and in several directions. **Stage 2: tunnels behind the first tunnels.** Start at the ground line; draw 2 tunnels going behind the others. When students get to a tunnel, they will have to stop and pick it up again on the other side.

4. **With tunnels complete, add worms, roots, microbes and mites.** Encourage students to examine a diagram of a worm; the clitellum is near the head.







DID YOU KNOW?

Earthworm tunnels let more water and more air into the soil, allowing plant roots to grow deeper into the soil.

Plant roots take up water, oxygen and nutrients for growing plants.

TEACH MORE ART!

Study a painting, such as "*In the Northland*" by Tom Thomson. Talk about how Thomson used variety, and how he achieved a sense of depth by overlapping elements.

OUTDOOR LEARNING

Head outside with pencils and sketch paper to see examples of overlapping. Look for tree branches that overlap other branches or a bush that overlaps a fence. Have students try to draw what they see, using overlapping to create depth.

Grass gnomes

ACTIVITY 4

RECOMMENDED GRADE LEVELS: 1 – 4

TIME: 45 minutes initially, 10 days for grass to grow

BRIEF DESCRIPTION OF ACTIVITY: A cute soil activity for a special event, such as Mother's Day or Father's Day, or to mark Earth Day.

KEY CONCEPTS: Creating characters with personality, like Rob's drawings, in a different medium. Soil is necessary for plant growth.

RELEVANT ARTS CURRICULUM: D1. Creating and Presenting; D2. Reflecting, Responding, and Analysing; and Principles of Design: Exploring forms.

SUPPLIES

- old knee-high nylons/hosiery
- spoon
- grass seeds
- potting soil
- googly eyes
- felt or foam for making features
- scissors
- hot glue gun or waterproof glue
- small flower pots or recycled yogurt containers (1 per student)
- small cups to fit into flower pots
- shallow basin
- water

RESOURCES

Examples can be found online by searching "grassy garden gnomes".

INSTRUCTIONS

1. **Discuss soil.** Have students examine the composition of the potting soil.
2. **Stretch a nylon over the mouth of a flower pot.** Put 1 spoon of seeds into the nylon + 2 handfuls of soil. Push to bottom.
3. **Remove; tie a knot close to the soil to make the head.**
4. **Create a face on the seeded part.** Encourage students to use features to give their gnomes character. Help with the glue; let dry.
5. **Invert the heads in the basin of water for 5 minutes to soak seeds.**
6. **Decorate flower pots while the heads soak.**
7. **Insert a small cup into the flower pot; add water to the cup.**
8. **Push the gnome head, seed side up, into the cup.** The dangling nylon will be a wick to keep the seeds moist.
9. **Place the gnomes by a sunny window.**
10. **Maintain the water level in the cup. Grass "hair" sprouts within a week!**

DID YOU KNOW?

One gram of healthy soil contains millions of organisms like earthworms, mites, insects, fungi, bacteria. Much of the soil on earth is being hurt by erosion, pollution, compaction or losing its nutrients. We can help Earth's soil recover by farming with care and not polluting.

TEACH MORE AG!

Canada's Agriculture and Food Museum provides a variety of free teaching resources.

Visit education programs at ingeniumcanada.org/agriculture.

OUTDOOR LEARNING

Head outdoors to collect small natural elements, like sticks, leaves, pebbles and flowers to make an environment for the gnomes – such as a house, then put them together to make a town. Or have students arrange the items as 3-dimensional natural sculptures with shapes they find pleasing.

Soil is a home

ACTIVITY 5

RECOMMENDED GRADE LEVELS: 2 – 3

TIME: 45 minutes

BRIEF DESCRIPTION OF ACTIVITY: Students will learn to draw a variety of living things that make their home in the soil.

KEY CONCEPTS: Observational drawing.

RELEVANT ARTS CURRICULUM: D1. Creating and Presenting; D2. Reflecting, Responding, and Analysing.

SUPPLIES

- templates
- drawing reference
- pencils
- scissors
- any colour media markers
- crayons
- pencil crayons

RESOURCES

Internet/library for images of things that live in soil.

https://goodineverygrain.ca/2016/12/05/world-soil-day-all-about-soil-microbes/

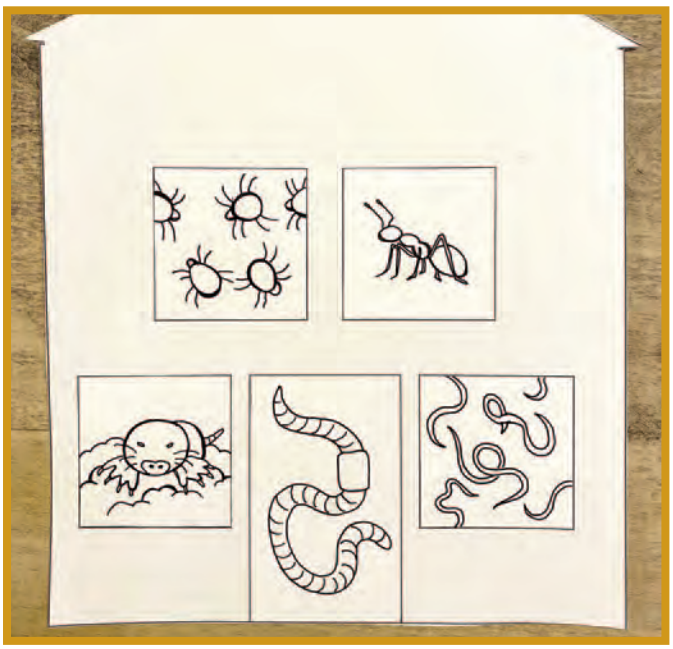
https://goodineverygrain.ca/2018/12/05/december-5th-2018-world-soil-day/

INSTRUCTIONS

1. **Give students drawing materials and 2 copies of the house template.** The creature template is for reference. **First house template:** draw and colour creatures in the spaces. Discuss how creatures help the soil. Mites break down animal & plant residue; earthworms mix soil & help it hold water; nematodes destroy pests; burrowing animals aerate soil & eat harmful insects; insects aerate soil & help matter decay.

2. **Second house template:** Colour your house; add touches like flowers. Cut out the windows and door along the top, bottom and right side; leave the left sides attached so they'll open.

3. **Glue the second house template on top of the first, lining up the windows and door.** Open the windows and door to see who lives inside. Label the back of each flap. Cut out the house through both layers.



DID YOU KNOW?

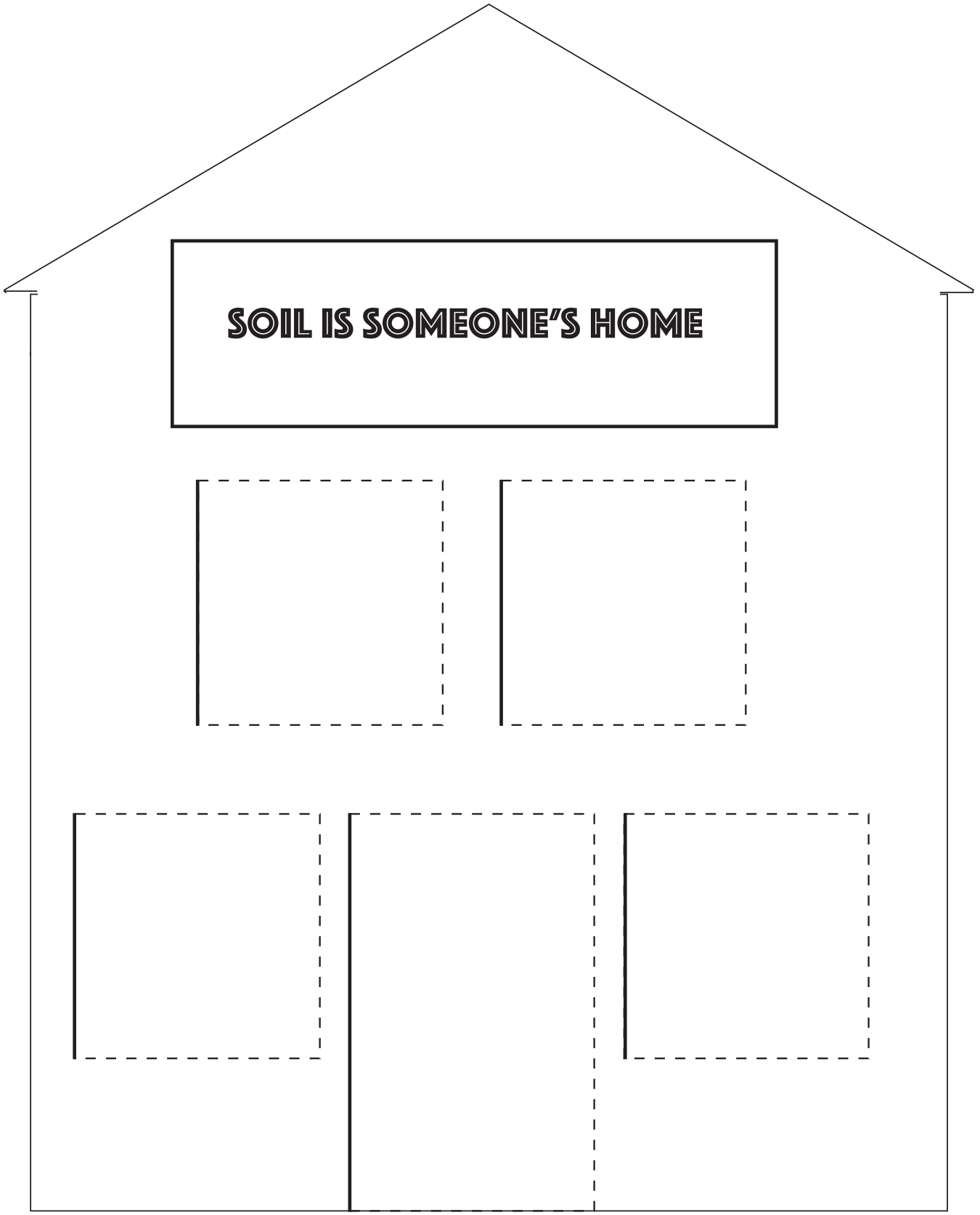
There are 2 main types of soil science. Pedology studies the physical and chemical aspects of soil, the role of organisms and how soils were formed. Edaphology is the study of how soil affects living things, especially plants. Both disciplines support agriculture and soil health.

TEACH MORE ART!

Observational drawing requires looking closely. An exercise to develop the skill is to draw the contours of things you look at without looking down at the paper. The purpose is to make sure you rely on observation, not keeping the image in your memory.

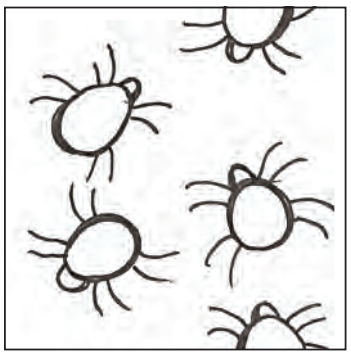
OUTDOOR LEARNING

Take students outdoors with paper and drawing materials to practise observational drawing of natural elements.



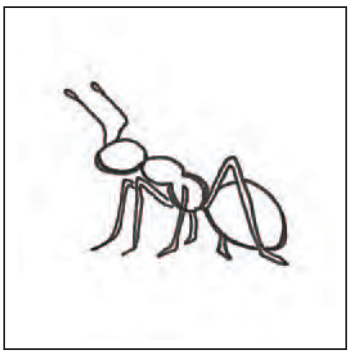
House template. Two for each student: one to draw creatures in the boxes, one to cut flaps for doors and windows.

Mole/other burrowing animals

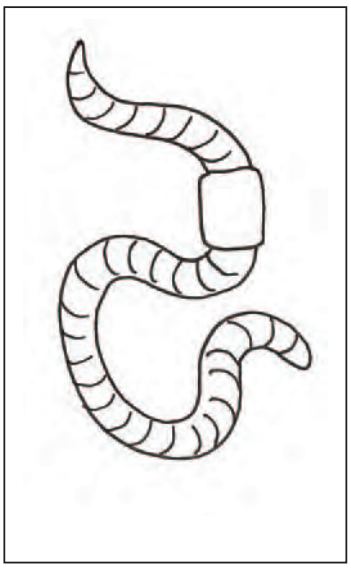


Mites

Nematodes



Insects



Earthworms

Creature template. Use this for reference for drawing creatures on the first house template.

Underground theatre

ACTIVITY 6

RECOMMENDED GRADE LEVELS: 3 – 4

TIME: 60 minutes, could be done over 2 or more days

BRIEF DESCRIPTION OF ACTIVITY: Group drama activity that incorporates making masks, researching, writing a brief script and acting.

KEY CONCEPTS: Research as a component of understanding a subject, adopting a point of view.

RELEVANT ARTS CURRICULUM: B1. Creating and Presenting; B2. Reflecting, Responding, and Analysing; and Fundamental Concept: relationship.

SUPPLIES

- paper/paper plates/cardstock
- scissors
- markers/crayons
- string/elastic to tie on masks

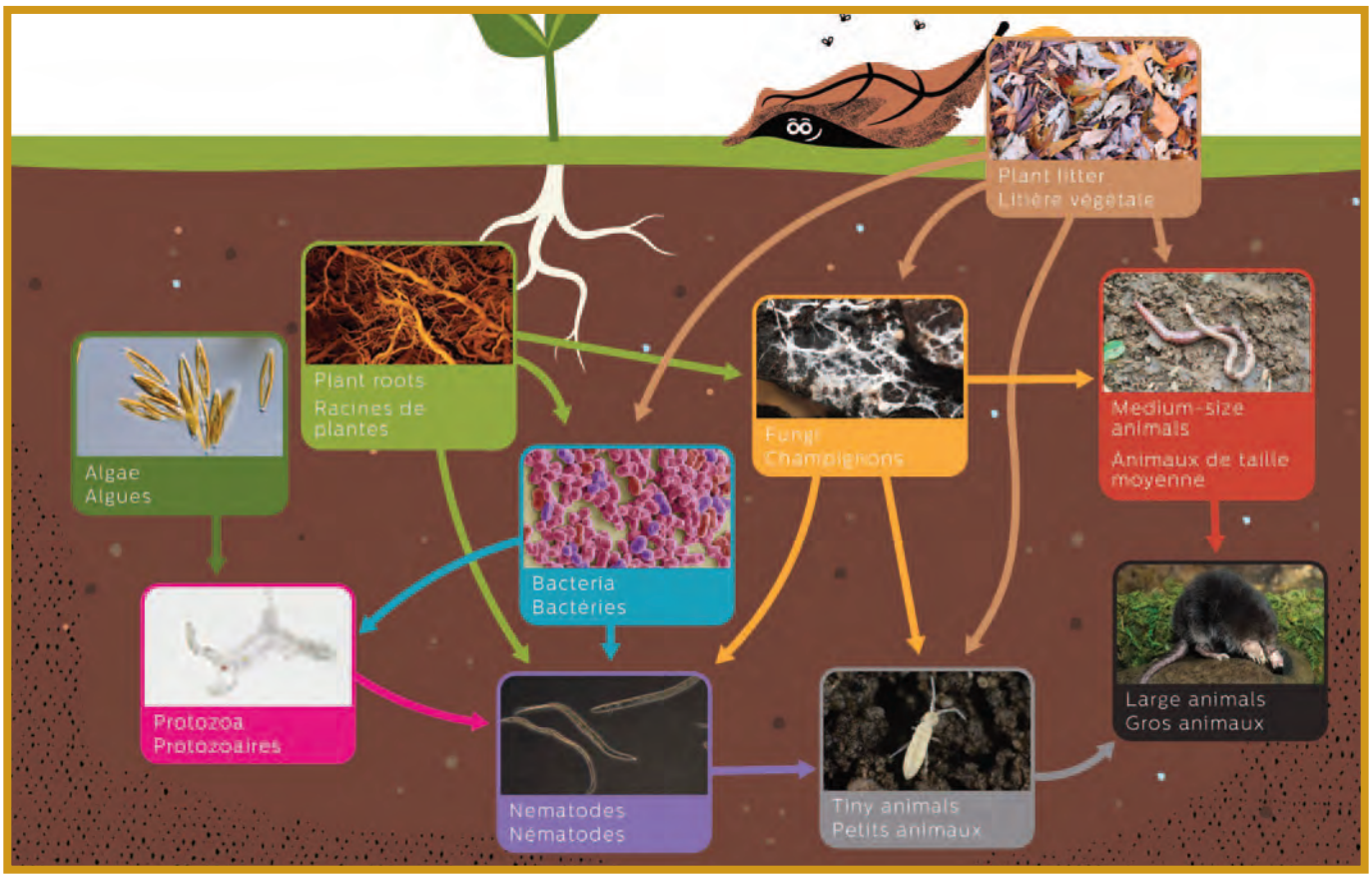
RESOURCES

The Story of Soil (page 25); library/internet

INSTRUCTIONS

1. Have students work in groups to research soil organisms (one per student) and then make masks to represent the organisms.

2. Have each group write a brief script (1 or 2 lines or actions per "organism") to show the organisms' relationships (e.g., are they friends? Enemies? Do they interact?) and how they help the soil. Have each group present their drama to the rest of the class.



DID YOU KNOW?

The organisms in soil represent 25 per cent of our planet's biodiversity. The creatures in the soil feed and protect plants, which in turn nourish the organisms. Soil biodiversity is important to human health as well; they help purify water, support food security and even play a role in capturing carbon.

TEACH MORE AG!

See the video series *Sustainable Solutions* from Good in Every Grain to learn how farmers use sustainable practices to protect the soil. https://GoodinEveryGrain.ca/grain-farming-videos/.

OUTDOOR LEARNING

After the masks and scripts are done, take the class outdoors to present their dramas al fresco.

Comic strip

ACTIVITY 7

RECOMMENDED GRADE LEVELS: 2 – 4

TIME: 45 minutes

BRIEF DESCRIPTION OF ACTIVITY: Students will illustrate an idea related to how people affect the soil. Suitable for Earth Day.

KEY CONCEPTS: Repetition, form, storytelling.

RELEVANT ARTS CURRICULUM: D1. Creating and Presenting; D2. Reflecting, Responding, and Analysing; B3. Exploring Forms and Cultural Contexts.

SUPPLIES

- Blank paper
- ruler
- pencil or pen
- colouring pencils or markers

RESOURCES

The Story of Soil (page 25), Library/internet
https://kids.frontiersin.org/article/10.3389/frym.2021.562430
https://www.youtube.com/watch?v=Qas9tPQKd8w&ab_channel=SoilScienceSocietyofAmerica

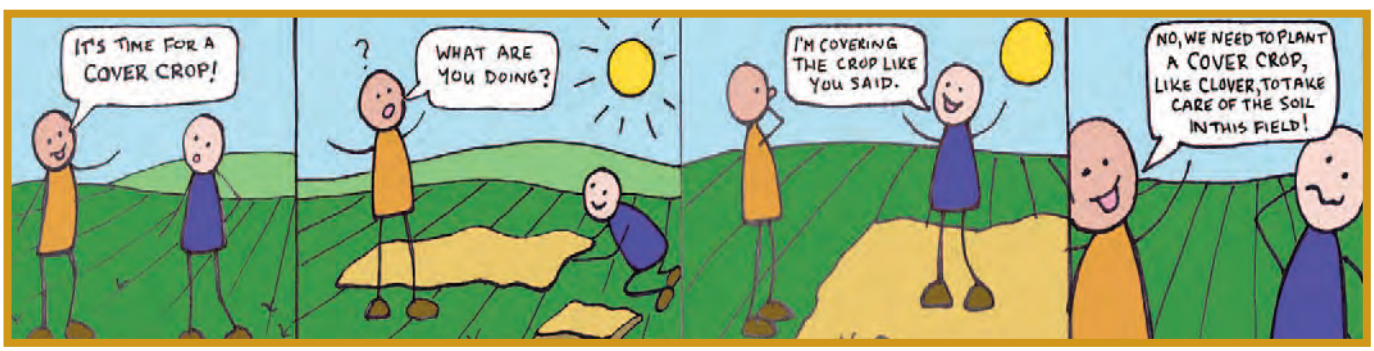
INSTRUCTIONS

1. **Discuss how soil develops over thousands of years and how human activity negatively impacts the soil, including pollution, intensive agriculture that causes erosion, and urban development.** Or consider how farmers support soil health by recycling crop waste and planting cover crops.

2. **Explain how to create a comic strip.**

   a. First, define your central idea and the story you want to tell.
   b. Write the dialogue and decide how many blocks you will need to present it.
   c. Draw the boxes you need – make them the same size and use a ruler.
   d. Draw the simplest pictures you can to tell your story. Colour or shade the images if you like. Sometimes a story can be told just with pictures.

3. **Encourage students to share their comics – classroom display, publish in the school/local paper, a class comic book.**



DID YOU KNOW?

Possibly the most famous Canadian cartoonist was Joe Shuster from Toronto who created *Superman* with his friend Jerome Siegel. Adrian Dingle created *Nelvana of the Northern Lights*, the first Canadian female superhero, in 1941, months before *Wonder Woman* hit the scene.

TEACH MORE ART!

Comic strips capture the imagination in ways no other medium can. They can be entertaining, informative or both. And it is a challenging artform! Share the comics from your newspaper with students to discuss the messaging or entertainment value.

OUTDOOR LEARNING

Head outdoors to observe activity around the school. Have students think of/discuss how they could portray any of the activities in comic form and what message they would convey.

Soil painting

ACTIVITY 8

RECOMMENDED GRADE LEVELS: 2 – 3

TIME: 45 - 60 minutes

BRIEF DESCRIPTION OF ACTIVITY: Students will create their own paint using soil.

KEY CONCEPTS: Pictographs and rock art, making paint from natural materials.

RELEVANT ARTS CURRICULUM: D1. Creating and Presenting; D2. Reflecting, Responding, and Analysing.

SUPPLIES

- Trowel for collecting soil
- mixing containers (size of yogurt containers)
- white glue
- thick paper, such as watercolour paper or card stock
- paint brushes
- styrofoam cups
- nylons
- mortar and pestle or Ziplock bag and hammers
- stir sticks (popsicle sticks)

RESOURCES

Agawa Rock, Lake Superior Provincial Park:
www.northernontario.travel/best/agawa-pictographs
albinger.me/2013/07/07/anishinaabe-pictograph-sites-in-ontario/

INSTRUCTIONS

1. **Examine photos of Ontario pictographs, such as those by the Ojibwe people on Agawa Rock.** They made paint from rocks and minerals they ground up and added to oils. During this activity, encourage students to assess the soil's qualities – dry, wet, powdery, clay – and discuss whether it can grow plants.

2. **Paint.**
   a. Collect soil, preferably in different colours, but one colour will do.
   b. Grind the soil into fine powder with a mortar and pestle or put it in Ziplock bags and crush with a hammer.
   c. Sieve the ground soil through a cut nylon over a Styrofoam cup. Discard large pieces.
   d. Pour a small amount of glue into Styrofoam cups, add the soil and stir. Add water as needed. It's paint!
   e. Students can paint with their soil paint or a combination of soil paint and other paints.

DID YOU KNOW?

The paint made by the Ojibway and used on Agawa Rock has lasted hundreds of years where conditions are right. The images show lines, circles, canoes, real animals (bear, eagle, horse, turtle, beaver) and mythical ones, a person on a horse and Mishipeshu, the Great Lynx.

TEACH MORE AG!

Assess soil by colour: the darker the soil, the more organic matter it has. Dry soil is a lighter colour. Below the topsoil is subsoil. If it looks grey, it probably is, or has been, waterlogged. Plant roots can't grow well in waterlogged soil due to less oxygen and nutrients being washed away.

OUTDOOR LEARNING

This activity can be messy! Consider making the paint outdoors.

Tell the world

ACTIVITY 9

RECOMMENDED GRADE LEVELS: 3 – 4

TIME: 45 minutes

BRIEF DESCRIPTION OF ACTIVITY: Students will collaborate to create a slogan and logo about protecting soil.

KEY CONCEPTS: Elements of design, communicating through design.

RELEVANT ARTS CURRICULUM: D1. Creating and Presenting; D2. Reflecting, Responding, and Analysing; and Principles: line, shape and form, space.

SUPPLIES

- Poster board
- paper
- drawing/colouring materials

RESOURCES

The Story of Soil (page 25) and Good in Every Grain, Protectors of the Land:

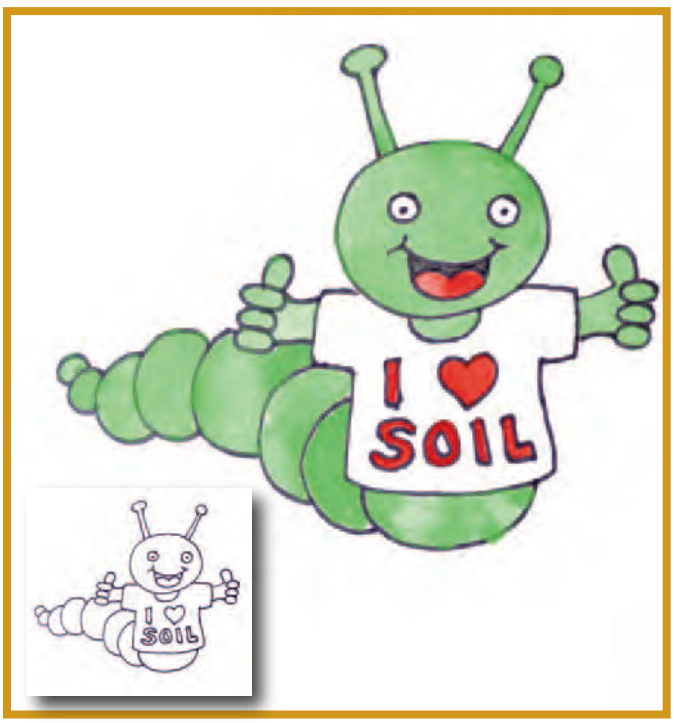
Link:
www.GoodinEveryGrain.ca/2020/04/08/protectors-of-the-land/

INSTRUCTIONS

1. **Have the class work together to create a slogan to tell everyone the Earth only has so much soil and we need to protect it so we can grow food.**
   Individual or group work: create an image to represent your slogan. Make a poster or leaflet to promote the slogan. It could be a design suitable for a t-shirt.

   A few slogans to get you started:

   - It's the only Earth we've got
   - We need soil!
   - I ♥ soil



DID YOU KNOW?

Soil is a finite resource. What we have is all we've got. If we ruin it, we can't make more. We need to make sure we keep our soils healthy and thriving to ensure we have a place to grow food.

TEACH MORE ART!

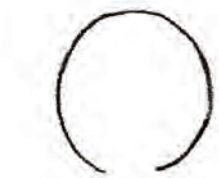
A slogan and logo go together to create an icon, an instantly identifiable graphic that conveys a complex message in an instant. Begin by identifying a few words that encapsulate your message. Shape, colour, and positive and negative space should be considered for a logo.

OUTDOOR LEARNING

Make observations outdoors of all the things that rely on soil to find inspiration for a logo.

Bonus activity

HOW TO DRAW A MITE



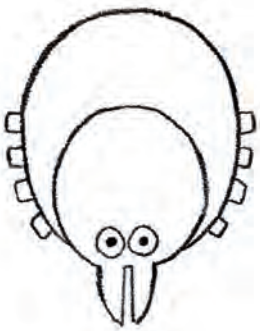
1. In the centre of your page, draw an oval shape, leaving a small gap at the bottom.

2. In this gap, draw two sharp 'teeth' shapes pointing downwards, as shown.

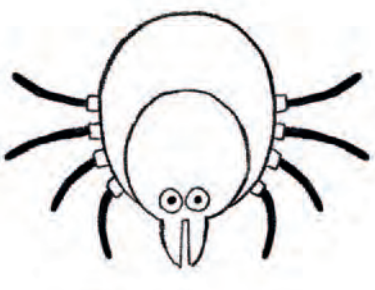
3. Draw two small circles just above these pointed shapes.

4. Add two black dots inside each of the circles. Look! Our mite is awake!

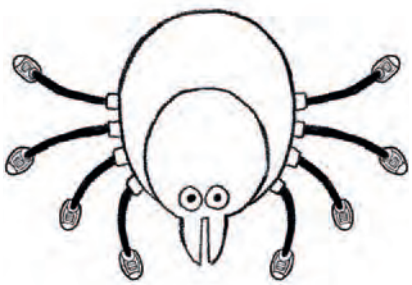
5. Draw a new, bigger oval shape all the way around our original one.



6. On the lower half of your new oval shape, draw four small squares on each side.



7. Out of each of these little squares, draw a nice, thick line. The two at the top should be longer than the two at the bottom. These are the mite's legs.



8. Our mite's feet are cold! Design some mite-sized shoes for all eight of their feet.

9. Time to colour. Artist's tip: Leave two white circles on the body, one larger than the other. This makes it look like our mite's body is shiny!

The story of soil

TEACHER RESOURCE

- Soil is created by rocks being ground down by wind, water, glaciers scraping across the land, and freezing and thawing. Over time, organic material like dead animals and plants gets mixed in with the ground-up rocks. It can take thousands of years; all this activity doesn't happen all at the same time, so the soil is formed in layers. If you could dig far enough into the soil you would see: humus, the leaves and other plants that make soil more fertile; topsoil, which contains lots of humus; subsoil, which has less humus than topsoil; parent material, the weathered particles of rock that form soil; and bedrock, the solid rock below the layers of soil.

- There is a whole world of living things in the soil beneath us; you could even say the soil is alive. The organisms that make up the soil have the same needs as we do – nutrition, water, air, shelter. They affect each other and support the plants humans need to live.

- Earthworms are an important part of soil health; their tunnels, castings (poop) and mucus all contribute to soil health. Think of their tunnels as habitats – they live and eat there, travel within them, and live near the other organisms, like mites and microbes, like a community.

- Who lives with the worms? Soil microbes include bacteria, fungi, protozoa, nematodes and micro-arthropods, such as mites. Soil microbes, which support soil structure and help keep soil healthy by promoting nutrient cycling, helping with disease and pest control, and limiting plant stress by helping balance pH levels, salt, moisture, and soil temperature. There are also bad microbes that cause disease or damage or kill other soil life. These bad microbes are managed by farmers in agriculture soil to help keep growing plants healthy.

- Healthy soil ultimately means healthy people, but there is only so much soil on Earth and human activity has a huge impact on it – good and bad. We all need to understand how to protect the soil. One way is through sustainable farming, which means using methods that recognize that micro-organisms are important, that protect the environment and public health, and that are cost-efficient.

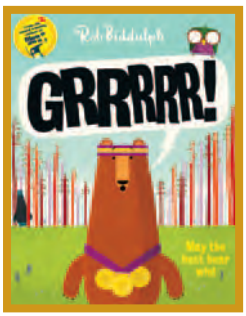
- Farmers who use sustainable practices look at things like how they can protect the soil by planting cover crops, which helps the soil retain its nutrients, suppresses weeds and protects the soil from erosion. Farmers also use modern technology to limit the amount of fertilizers or chemicals that need to be added to the fields, and to limit their carbon footprint to help reduce emissions.

- We may not think about how we need soil to be healthy, but it is very important. Soil needs to be kept healthy, with lots of plant nutrients and a thriving biodiversity, to ensure that the plants we grow in that soil produce healthy food for us to eat.

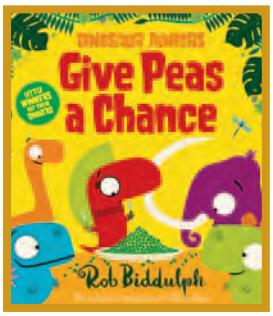
Recommendations

BOOKS FOR STUDENTS

BOOKS BY ROB BIDDULPH



GRRRRR!
Fred always wins for the best growl at bear competitions. Being the best is hard and a lot of work. Fred doesn't mind all the time he spends alone practising. But one day a new bear comes along and Fred loses his growl. What will Fred do? Might he learn that some things are more important than winning?



DINOSAUR JUNIORS GIVE PEAS A CHANCE
Nancy has peas for dinner. She's not a happy dinosaur, but luckily, she has a plan to make those peas disappear! Her plan is guaranteed not to fail. But maybe things aren't quite so easy-peasy.

KEVIN
When Sid Gibbons gets in trouble – again! – he blames it on his big, furry, vanilla-and-pink, make-believe friend Kevin. Sid gets a bit surprise when he discovers that Kevin might not be so imaginary after all.

BOOKS ABOUT EARTHWORMS AND SOIL

Garden Wigglers: Earthworms in Your Backyard
By Nancy Loewen
Lots of fun facts about earthworms! Find out why you see them on the sidewalk after it rains and why we call them nature's gardeners.

Exploring Soils: A Hidden World Underground
By Samantha Grover and Camille Heisler
James wants to become a soil scientist. He discovers that soil is not just dirt for digging in. It is a very important part of our world.

Tiny Creatures: The World of Microbes
By Nicola Davies
Find out how the smallest things on Earth do some of the biggest jobs.


Soil

GOOD in every GRAIN

GRAIN FARMERS OF ONTARIO

MUSÉE DE L'AGRICULTURE
ET DE L'ALIMENTATION
DU CANADA

CANADA AGRICULTURE
AND FOOD MUSEUM