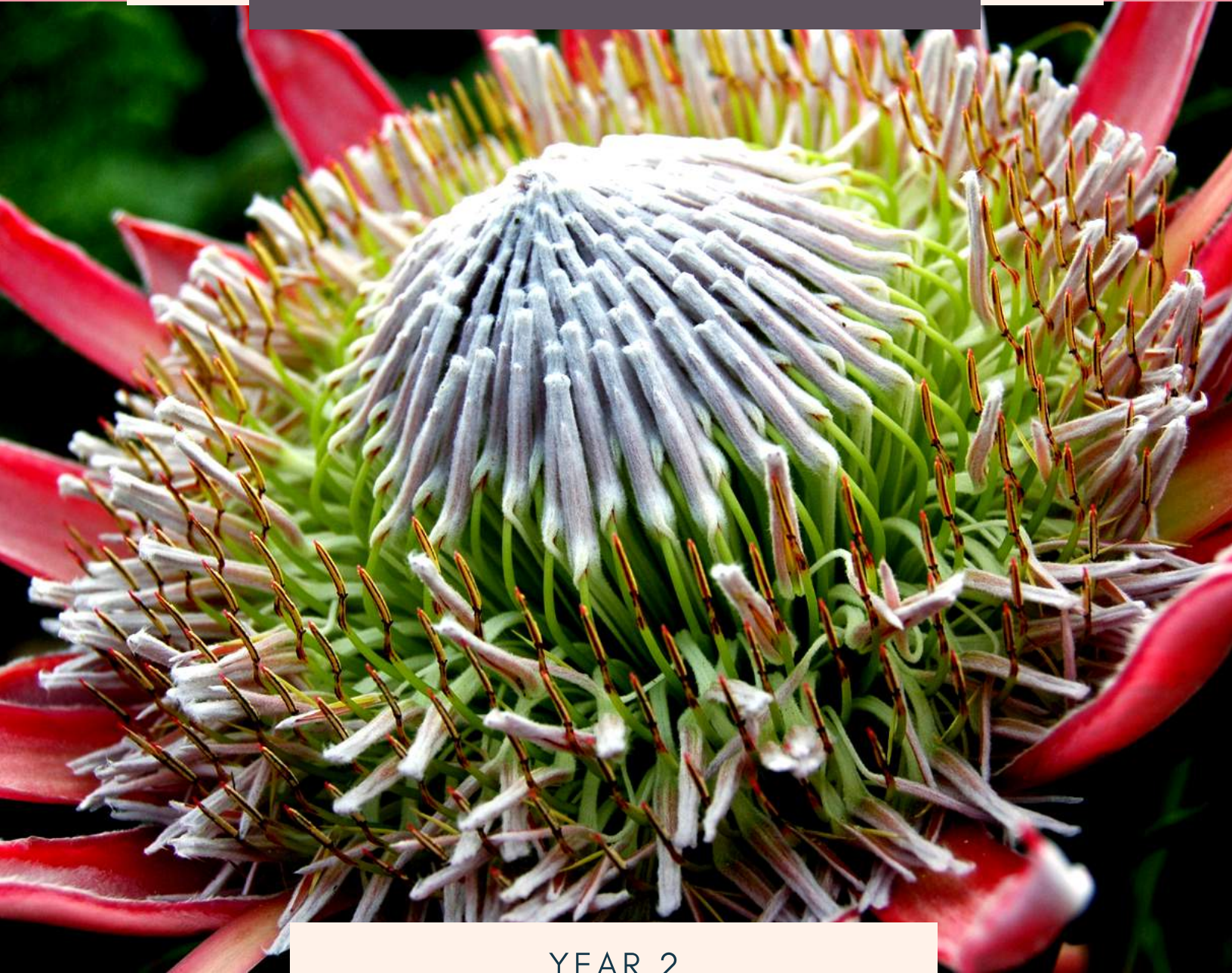


BLOSSOM & ROOT

ELEMENTARY SCIENCE // YEAR 2

Wonders of the Plant & Fungi Kingdoms

LABORATORY GUIDE



YEAR 2

Exploring the Plant & Fungi Kingdoms



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Blossom & Root

Elementary Science,
Year 2:

Wonders of the Plant & Fungi Kingdoms

A Complete, Hands-On Secular Science Curriculum

Grades 1 - 4

Blossom & Root Elementary Science Year 2: Wonders of the Plant & Fungi Kingdoms

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Wonder No. 7: Needles

For the Outdoor Learners:

Needles Scavenger Hunt

What You'll Need:

- A place to walk where there will be trees with needles
- A copy of the "Needles Scavenger Hunt" sheet on the next page

What to Do:

1. Go for a bush walk / hike.
2. Look for the items on the "Needles Scavenger Hunt" sheet and circle them as you find them.
3. Take time to explore and observe needles up-close. If you have a field microscope or a magnifying glass, use it to look at any needles that you find. Talk about what you see as you walk.
4. Once your hike is done, look at any items you did not see. Talk about where you might see these items on a different hike, somewhere else.

For the Table-Lab Crowd:

Guess the Needle Game

What You'll Need:

- A variety of needled specimens from trees and shrubs (gathered around your home, from tree farms, etc.)
- A tree guide or book about trees (see suggested books in the parent guide for this unit)
- Index cards, pencil

What to Do:

1. Look at a specimen. Pay attention to any details you can see: how many needles at each attachment, what do the needles look like, etc.

2. Consult a tree guide / book about trees and try to figure out what kind of tree this specimen belongs to. When you think you know the answer, write it on an index card next to the specimen.

3. Repeat with each specimen until you think you've figured all of them out.

For the Table-Lab Crowd:

Up-Close with Plant Needles Object Lesson

What You'll Need:

- A variety of specimens from needles trees and shrubs, collected from around your home. (If it's around the holidays, you can gather some from a local tree farm.)
- A variety of observation instruments: a magnifying glass, hand-held / field microscope, jeweler's loupe, paper and crayons for rubbings, scissors, etc.

What to Do:

Spread the specimens out on a table, along with observation instruments you have on-hand. Invite your child to explore the needles in a casual object lesson. Some ways to explore include:

- Looking at needles with a magnifying class, field microscope, or jeweler's loupe
- Making rubbings of needles with crayons and paper, or cutting them with scissors
- Rolling needles between fingers
- Crushing needles with a finger nail and smelling them
- Carefully poking the tip of your finger with the needles, or stroking a branch with your palm
- Blowing onto the needles

While you explore, talk together about what you notice. Do certain specimens have a strong scent? Which ones can be rolled between your fingers? Etc.

Wonder No. 7: Needles Scavenger Hunt



Needles with cones



Needled plant growing out of a rock



Scale-like needles



Short and spiky needles



Dead or yellowed needles



Long needles



Needles with berry-like cones



Needles that change colors in the fall



Needles on the ground

Wonder No. 7: Needles

For the Craft-and-Projects Families:

Common Conifers Identification Poster, Part One:
Needles

What You'll Need:

- A poster board or large sheet of paper
- Photographs of conifers OR gather specimens
- Tape
- Markers or crayons
- A tree book or guide to trees

What to Do:

1. Divide your poster board into several sections--one section for each conifer you plan to feature. Some common conifers to consider: pine, spruce, fir, yew, juniper, etc.
2. In each section, you will write the name of the conifer as well as a few key identifying features. Some ways to identify the type of conifer may include needle location and appearance, needle shape, any identifying scents of a crushed needle, etc. (You will be adding identifying features of cones later.)
3. Either tape a photograph of the needles of each specimen in each section OR tape a specimen that includes needles into each section. You may have to use strong packing tape to do this, rather than Scotch tape. If you plan to tape specimens onto your poster, you may want to consider using a piece of sturdy foam core board instead of poster board.
4. Set your poster aside in a safe location once you are finished. You will return to add details regarding cones later.

For the Craft-and-Projects Families:

Taiga / Boreal Forest Plants Collage

What You'll Need:

- A poster board or large sheet of paper
- Photographs of the taiga / boreal forest printed off the internet or cut out of a magazine
- Glue or glue stick, scissors
- Markers or crayons

What to Do:

1. Read or learn about taiga / boreal forests using the resources recommended in the parent guide and / or the library and internet.
2. Label a poster or a large sheet of paper "Taiga Biome" or "Boreal Forest Biome."
3. Write a few important facts you've learned about this biome on your poster.
4. Decorate the poster with the photographs you have gathered, being sure to add labels where they may be helpful.
5. Add your own drawings if desired.
6. Share your poster with the rest of the family. Be sure to tell them all that you have learned about this beautiful and important biome.

