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# 4-Day Homeschool Lesson Plan: The Wonderful World of Plants

**Student:** Mirabelle (Age 6, 1st Grade)

**Topic:** Introduction to Plants (Needs, Parts, Life Cycle)

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## Day 1: What Do Plants Need to Live?

**Learning Objective:** Mirabelle will be able to identify and name the four basic needs of a plant (sunlight, water, air, soil/nutrients).

### Materials Needed:

- A small houseplant (if you have one) or a picture of a healthy plant
- A glass of water
- Worksheet: "K5 4 needs of plant worksheet"
- Crayons or colored pencils
- Access to YouTube
- *Optional Book Suggestion:* "The Tiny Seed" by Eric Carle (from the library)

### Lesson Plan:

#### Direct Instruction (~20 mins)

##### 1. Introduction (5 mins): Let's Be Plant Detectives!

**What to do:** Sit with Mirabelle in a cozy spot. If you have a houseplant, place it in front of you. If not, use a picture.

**What to say:** "Good morning, Mirabelle! This week, we're going to become amazing plant scientists. Let's start by looking at this plant. What do you notice about it? What colors do you see? It looks happy and healthy, doesn't it? I wonder what makes a plant happy and healthy. What do you think this plant needs to live and grow big and strong?"

*(Listen to her ideas, acknowledging all of them.)*

##### 2. Discovering the Needs (10 mins): Video & Action

**What to do:** Watch a short, engaging video about plant needs.

**Video Suggestion:** Search on YouTube for "What Do Plants Need to Grow? for kids" or "SciShow Kids: The Needs of a Plant."

**What to say:** "That was a great video! It told us that plants have four secret ingredients they need to be happy. Let's see if we can remember them and act them out!"

- **Sunlight:** "First, they need sunlight! Let's make a big, round sun with our arms and shine bright!"
- **Water:** "Next, they need water. Let's pretend to be a watering can and sprinkle some water. (*Pssssshh*)" (You can even use the glass of water to pretend to water your houseplant).
- **Air:** "They also need air, just like we do! Let's take a big, deep breath in and out. Ahhhh."
- **Soil/Nutrients:** "And last, they need soil to hold their roots and give them food, called nutrients. Let's wiggle our fingers like roots digging down into the rich soil."

##### 3. Check for Understanding (5 mins):

**What to do:** Point to the plant again.

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**What to say:** "So, if we want to keep our plant happy, what are the four things we need to give it? Can you tell me?" (Help her recall sunlight, water, air, and soil). "You got it! You're already a fantastic plant scientist!"

### Independent Work (~15+ mins)

**What to do:** Give Mirabelle the "K5 4 needs of plant worksheet" and some crayons.

**What to say:** "Now it's your turn to show me what a happy plant looks like. On this paper, can you circle the four things our plant needs to grow? Afterwards, you can color the picture of the happy plant and its four important needs. I'll be right here if you have any questions."

## Day 2: The Super Parts of a Plant

**Learning Objective:** Mirabelle will be able to identify the main parts of a plant (roots, stem, leaves, flower).

### Materials Needed:

- A real example of a plant with visible parts (a dandelion or weed from the yard is perfect, or a carrot with the green top still on, a stalk of celery, and a flower).
- Paper (construction paper or plain white)
- Glue or tape
- Craft supplies: brown yarn (roots), green pipe cleaner or popsicle stick (stem), green paper (leaves), colorful tissue paper or cupcake liner (flower)
- Your "Parts of a plant PowerPoint" OR a book like "National Geographic Readers: Seed to Plant"
- Worksheet: "K5 parts of plant worksheet"

### Lesson Plan:

#### Direct Instruction (~20 mins)

##### 1. Review & Introduce (5 mins): Plant Part Hunt

**What to do:** Go on a quick hunt outside or in your kitchen for the plant parts you gathered.

**What to say:** "Hi Mirabelle! Yesterday we learned what plants NEED. Can you remind me of one thing? (Sunlight, water, etc.) Great! Today, we are going to learn about the different PARTS of a plant. Each part has a very important job to do, like a superhero team!"

##### 2. Explore the Parts (10 mins): A Plant's Body

**What to do:** Show her the real plant parts you found. If using the PowerPoint, have it ready. Talk about each part and its job.

- **Roots:** (Show the dandelion root or the carrot). "These are the roots! They are usually under the ground. Their job is to drink up all the water from the soil and hold the plant steady so it doesn't fall over. Let's wiggle our toes like they are roots in the ground!"
- **Stem:** (Show the dandelion stem or celery stalk). "This is the stem. It's like a straw! It carries the water from the roots all the way up to the leaves. Let's stand up tall and straight like a strong stem."
- **Leaves:** (Show the leaves). "Here are the leaves. Their job is to soak up all the sunshine to make food for the plant. Let's open our hands wide like leaves catching the sun's rays."
- **Flower:** (Show the flower). "And here is the beautiful flower! Its job is to look pretty to attract bees and to make seeds so new plants can grow."

##### 3. Build-A-Plant (5 mins): Craft Time!

**What to do:** Start a simple craft with her that she can finish on her own.

**What to say:** "Let's build our very own plant! We can use this yarn for the roots to drink

water, this green pipe cleaner for the strong stem, this green paper for the sun-catching leaves, and this colorful paper for the pretty flower." (Help her glue or tape the first piece or two onto a sheet of paper).

### Independent Work (~15+ mins)

**What to do:** Let Mirabelle finish her craft plant. When she is done, she can complete the "K5 parts of plant worksheet."

**What to say:** "You can finish making your amazing craft plant! Make sure it has all the parts we talked about. When you're done, you can use this worksheet to label the parts of the plant in the picture. You can use your craft to help you remember!"

## Day 3: A Plant's Amazing Life Cycle

**Learning Objective:** Mirabelle will be able to sequence the four main stages of a plant's life cycle (seed, sprout, small plant, adult plant with flower).

### Materials Needed:

- An apple or other fruit with visible seeds
- A paper plate
- A brass fastener (brad)
- Markers or crayons
- A ruler
- Scissors (with supervision)
- Your "Life cycle of a plant PowerPoint" OR a YouTube video
- *Optional Book Suggestion:* "A Seed Is Sleepy" by Dianna Aston

### Lesson Plan:

#### Direct Instruction (~20 mins)

##### 1. Introduction (5 mins): The Secret Inside

**What to do:** Cut an apple in half horizontally to show the star-shaped seed pattern inside.

**What to say:** "Mirabelle, yesterday we learned about the parts of a plant. What part of the plant is an apple? It's the fruit! And what is the flower's job? To make seeds! Look inside this apple. What do you see? Seeds! Every single plant, from a tiny flower to a giant tree, starts its life as a tiny seed just like this. Today we're going to learn about the amazing journey a seed takes to become a big plant. It's called a life cycle."

##### 2. Visual Learning (10 mins): The Story of a Seed

**What to do:** Use your "Life cycle of a plant PowerPoint" or watch a video.

**Video Suggestion:** Search YouTube for "The Plant Life Cycle for Kids" or "How a Seed Becomes a Plant by SciShow Kids."

**What to say:** As you watch, pause to talk about the stages. "Look! First, it's a tiny **seed** in the soil. Then, with water and sun, it grows a little root and becomes a **sprout**! See it peeking out? Next, it grows into a small **plant** with a stem and leaves. Finally, it becomes an **adult plant** and grows a flower, which will make new seeds to start the cycle all over again!"

##### 3. Start the Craft (5 mins): Life Cycle Wheel

**What to do:** Take the paper plate and help Mirabelle use a ruler to draw lines to divide it into four equal sections (like a pizza).

**What to say:** "We are going to make a life cycle wheel to help us remember the plant's story. I've divided our plate into four parts, one for each part of the story. In the first spot, we will draw the seed." (Draw a small seed in the first quadrant).

**Independent Work (~15+ mins)**

**What to do:** Guide Mirabelle to draw the next stages in order on the paper plate.

**What to say:** "Now it's your turn to be the artist and scientist! In the next section, can you draw the sprout coming out of the seed? Then the small plant with leaves. And in the last section, draw the big plant with a flower. You can color them all in. When you're done, we can add an arrow to show how the circle of life continues!" (Once she is done drawing, you can help her cut out a paper arrow and attach it to the center of the plate with the brass fastener so it can spin).

**Day 4: Plant Project & Review**

**Learning Objective:** Mirabelle will create a piece of artwork that correctly identifies and labels the main parts of a plant, demonstrating her understanding from the week's lessons.

**Materials Needed (This is the portfolio project!):**

- Several different kinds of fall leaves, collected from outside (press them in a heavy book overnight if possible, but not required)
- A large piece of sturdy paper or cardstock (e.g., 11x17)
- Crayons (especially brown, black, and fall colors like red, orange, yellow)
- A plain piece of thin white paper (like computer paper)
- Glue stick
- A black marker

**Lesson Plan:****Direct Instruction (~20 mins)****1. Review Game (5 mins): Plant Part Simon Says**

**What to do:** Play a quick review game.

**What to say:** "Let's play a game to warm up our science brains! I'll be Simon. Simon says, 'Show me your roots wiggling in the soil!' ... Simon says, 'Stand tall like a stem!' ... 'Touch your nose!' Ah, I tricked you! Simon says, 'Show me your leaves soaking up the sun!'" (Continue for a few rounds).

**2. Introducing the Project (15 mins): Fall Plant Masterpiece**

**What to do:** Model the steps for the project.

**What to say:** "Mirabelle, you have learned so much about plants this week! Today, we are going to create a beautiful piece of art for your portfolio to show everyone what an expert you are. We are going to make a diagram of a fall tree."

1. **Step 1: Leaf Rubbings.** "First, we'll make the leaves. Take one of the real leaves you found and place it under this thin white paper. Now, peel the paper off a crayon and rub it on its side over the leaf. Look! A perfect copy appears like magic!" (Let her do a few with different colored crayons on the thin paper).
2. **Step 2: Assemble the Tree.** "Next, we need a tree! On our big paper, let's draw the underground part first. What grows under the ground?" (Roots). "Let's draw some brown, wiggly roots at the bottom. Then, what comes next?" (The stem, or trunk for a tree). "Let's draw a big, strong trunk."
3. **Step 3: Add the Leaves.** "Now you can carefully cut out your beautiful leaf rubbings and glue them onto the branches of your tree." (Help with cutting if needed).

**Independent Work & Final Touches (~15+ mins)**

**What to do:** Mirabelle finishes her artwork, and then you help her label it.

**What to say:** "You can finish gluing on all your beautiful fall leaves. While you do that, let's think. What are the four things your tree needs to be healthy?" (Sun, water, air, soil). "Let's add a big yellow sun in the sky and some blue raindrops to our picture to show it has everything it needs."

**Final step (together):** "Your artwork is amazing! Let's get our black marker and label the parts so everyone knows you are a plant scientist. I'll help you spell the words. Where should we write **R-O-O-T-S**? How about **T-R-U-N-K**? And where are the **L-E-A-V-E-S**?" (Write the words clearly for her to see, or have her trace them).

"Look what you made! This is a perfect project to show how much you've learned about the parts of a plant and what it needs to live. I am so proud of you!"

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