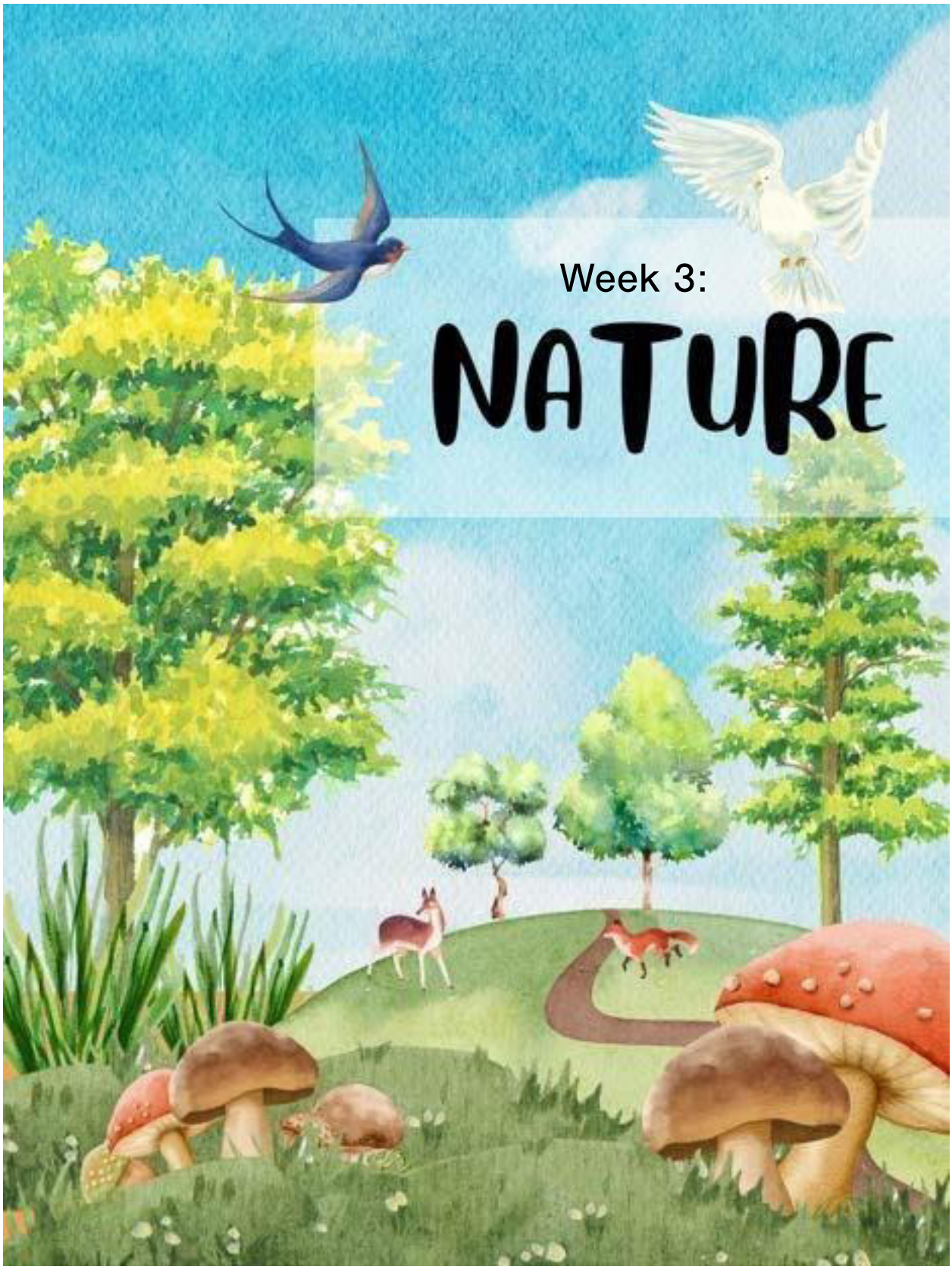

Week 3:
NATURE

Materials List

- Popsicle sticks
- Paint in various colors
- Paint brushes
- Scissors
- Hot glue gun and glue sticks
- Press'N Seal (or contact paper also works)
- Twine rope
- Color Splash Tempera Paint
- Paper plates
- Art Paper– a thin smooth surface paper works best
- Scrap Cardboard
- Scrap paper or newspaper
- Paper towels
- 1-2 boxes of chocolate pudding mix
- 1 large bowl
- 1 Mixing spoon
- 1 gallon of milk
- 1-2 containers of cool whip
- 2-3 cases of Oreo cookies
- 1 -2 bags of gummy worms
- Small plastic cups
- Plastic spoons
- Ziploc bags
- Markers
- Crayons or colored pencils
- Nature Journal - PDF Attached
- Empty 2 Liter Bottles
- Soil
- Small Rocks/Pebbles
- Seeds
- Fertilizer (Optional)
- Activated Charcoal (Optional)
- Moss (Optional)
- Sand (Optional)
- Nature Stickers (Optional)
- Paper Plates
- Natural Materials – e.g. twigs, leaves, grass, moss etc.
- String/Yarn
- Glue
- Soil
- Grass Seeds
- Spray bottle

Activity Name	Nature Suncatcher
Area of Development	Arts & Crafts

Activity Objectives:

Environmental Awareness and Appreciation: Instill a sense of appreciation for nature and the environment by encouraging children to explore and collect natural items.

Scientific Inquiry and Observation: Encourage curiosity and observation by exploring the natural environment and collecting various natural items.

Materials:

- Popsicle sticks
- Paint in various colors
- Paint brushes
- Scissors
- Hot glue gun and glue sticks
- Press'N Seal (or contact paper also works)
- Twine rope
- Leaves, twigs, flower petals, etc…

Procedure

- Begin by taking 4 popsicle sticks and glue them with a hot glue gun to make a square-shaped frame. Make a frame for each child.
- Next, cut a long piece of Press'N Seal. Lay one frame on top to measure, then fold the Press'N Seal over creating a closed square and cut it to size. Next, open the Press'N Seal back up, and lay it flat.
- Allow the children to paint their popsicle sticks. Set the frames aside to dry
- Invite children to go on a nature hunt and let them collect their favorite flower petals, leaves, small flowers etc. The more colorful the better!
- Allow children to press each of nature's findings onto one side of the Press'N Seal.
- Fold the other side of the Press N Seal over making sure the flower petals and other nature findings are enclosed within the Press'N Seal sheet.
- Take the twine rope and cut a long piece of it, this piece has to be long enough to hang the frame!
- Help the children by taking the hot glue and attach the rope to one of the frames. Put a bit of hot glue to each corner of the frame that has the twine hanger and carefully lay your nature sheet on top and secure it with hot glue.
- add glue in each corner of the other frame and lay it flat on top of their nature findings sheet.

Activity Name	Nature Art Prints
Area of Development	Arts & Crafts

Activity Objectives: Problem-Solving and Experimentation: Promote problem-solving and experimentation by trying different plants and techniques.

Observation and Attention to Detail: Enhance observation skills and attention to detail by closely examining plants and their prints.

Materials:

- Freshly gathered collection of plants
- Color Splash Tempera Paint
- Paper plates
- Soft Bristle Paint Brush
- Art Paper– a thin smooth surface paper works best
- Scrap Cardboard
- Scrap paper or newspaper
- Cups of water
- Paper towels

Procedure

- Use a soft brush to paint directly on the plant.
- Carefully place the painted plant with the painted side down on top of a clean piece of smooth art paper.
- Place a scrap piece of paper or old newspaper over the back of the painted plant and use your hand to firmly press the painted plant onto the paper creating a nature print.
- Remove the protective paper backing and carefully lift the plant off the paper to reveal the first nature print
- Repeat the process with the other nature materials.

Activity Name	Dirt Cups
Area of Development	Cooking

Activity Objectives:

Culinary Skills Development: Introduce basic culinary skills and concepts such as mixing, folding, and assembling ingredients.

Understanding Basic Food Science: Introduce basic food science concepts such as thickening and texture changes.

Materials:

- 1-2 boxes of chocolate pudding mix
- 1 large bowl
- 1 Mixing spoon
- 1 gallon of milk
- 1-2 containers of cool whip
- 2-3 cases of Oreo cookies
- 1 -2 bags of gummy worms
- 1 small plastic cup per child
- Plastic spoons
- Ziploc bags

Procedure

- In a large bowl, sprinkle the pudding mix over the top of the milk and then whisk to combine. Let the pudding sit for five minutes to thicken.
- Gently fold the whipped topping into the pudding mixture. Doing this gently will ensure the topping stays airy and fluffy. Don’t stir because that will deflate it.
- Allow the children to spoon the chocolate pudding into their cups.
- Give each child 2-3 Oreo cookies in a ziploc bag and let them crush the cookies using their hands.
- Top each one with the crushed cookies and then stick four gummy worms in each.
- Cover and chill the pudding dirt cups until you’re ready to serve them.

Activity Name	Nature Walk Journal
Area of Development	Language & Literacy

Activity Objectives:

Observation and Exploration: Foster curiosity and observation skills by encouraging children to explore their natural surroundings.

Promote Scientific Inquiry: Cultivate a sense of scientific inquiry by prompting children to explore and ask questions about the natural world.

Materials:

- 1 Ziploc bag per child (You will use items collected for art activity)
- Markers
- Crayons or colored pencils
- Nature Journal - PDF Attached

Procedure

- Print out Nature Journal cover PDF - 1 per child
- Take the children on a nature walk outside around the school
- Encourage children to use their 5 senses while on the nature walk
- Allow children to collect leaves, sticks, rocks and other things from the nature walk.

Nature Journal

Name: _____ Date: _____

I saw _____

Activity Name	Bottle Terrarium
Area of Development	STEAM

Activity Objectives:
Promote Collaboration: Foster teamwork and cooperation through group terrarium construction.

Scientific Exploration: Foster curiosity and scientific inquiry about plant growth and ecosystems.

-

Materials:

- Empty 2 Liter Bottle - per small group
- Scissors or Knife
- Soil
- Small Rocks/Pebbles
- Water
- Seeds
- Fertilizer (Optional)
- Activated Charcoal (Optional)
- Moss (Optional)
- Sand (Optional)
- Nature Stickers (Optional)

Procedure

- Take the empty 2-liter soda bottles and make sure they are clean. Cut the bottom part off about 5 inches from the bottom of the bottle. (This is a good step for the adult helper.) Put the top piece of the bottle aside.
- Fill the bottom half of the bottle with a layer of sand and then pebbles or small rocks. This helps with drainage for your terrarium. It's okay if you don't have sand available. The rocks really help though.
- Next, if you'd like, add a small layer of activated charcoal. This is mainly to prevent any bad smells. So it's helpful if you are keeping your terrarium inside or planning on having several. We left our terrariums outside, so we skipped this step.
- Add a layer of potting soil. This should go up almost to the top of your bottle half.
- Add your seeds or small plant to the soil. Water and add fertilizer as you feel necessary.
- Take the top half of the bottle and place it back over the bottom half. (Keep the cap on.) This creates a terrarium environment where moisture is trapped to help the plant grow. You will need to add water periodically though, as it is not completely sealed.
- Place your terrarium in your yard or in a window to get light and watch your plants grow!

Activity Name	Nest Building
Area of Development	STEAM

Activity Objectives:

Encourage Creativity and Imagination: Stimulate creativity and imagination by allowing children to design and create their own bird's nests using natural materials.

Nature Exploration and Appreciation: Foster a deeper appreciation for nature by using natural materials in the craft.

Materials:

- Paper Plates
- Scissors
- Glue
- Natural Materials – e.g. twigs, leaves, grass, moss. pebbles etc.
- String/Yarn

Procedure

- Pass out 1 paper plate per child
- Allow each child to use the items they collected from their nature walk
- Children will use glue to glue down their materials and build their bird's nests.

Activity Name	How Tall Will Your Grass Grow?
Area of Development	Cognitive

Activity Objectives:

Encourage Creativity and Imagination: Stimulate creativity and imagination by allowing children to design and create their own bird's nests using natural materials.

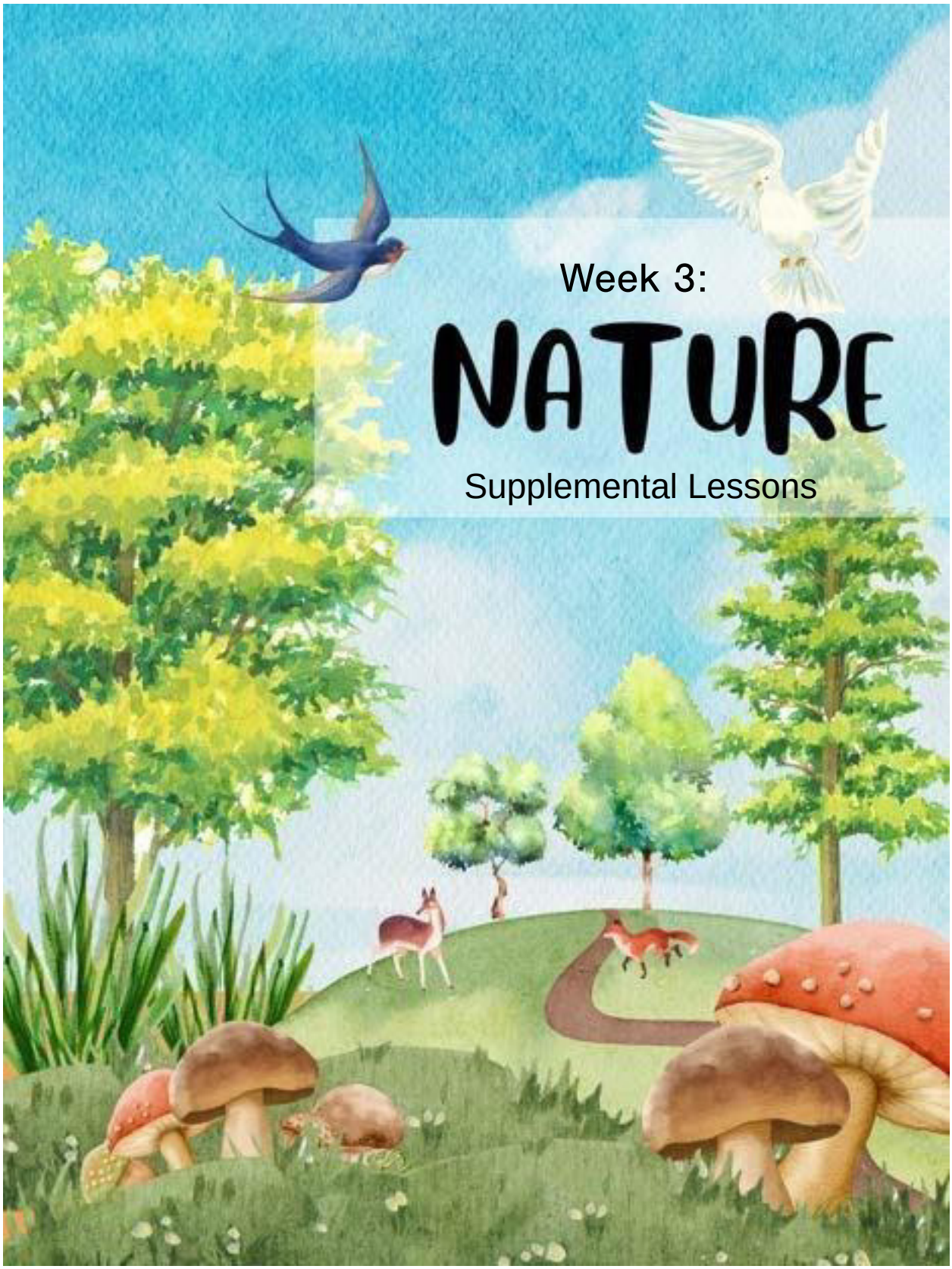
Nature Exploration and Appreciation: Foster a deeper appreciation for nature by using natural materials in the craft.

Materials:

- 1 Plastic cup per child
- Scissors
- Glue
- Soil
- Spoons
- Grass Seeds
- Spray bottle
- Pictures of each child’s face

Procedure

- Take pictures ahead of this activity of the children's faces and print them out. You can also have children draw a face on the cup.
- Pass out 1 cup per child
- Allow children to cut out and glue their pictures to the cups
- Have the children use plastic spoons to fill their cups about ¾ full with dirt/soil
- Have the children sprinkle grass seed on top of the dirt (the more seed, the more grass that will grow).
- Then cover the seeds with a small amount of dirt.
- Lastly, have the children use a spray bottle to water their seeds.
- Encourage children to predict how many inches their hair (the grass will grow)


Week 3:
NATURE
Supplemental Lessons

Ants on a Log

Log Ideas

Carrots, Cucumber (slice in half, lengthways and scrape out seeds), Banana (slice in half, lengthways), Apple (cut into wedges)
Pear (cut into wedges), Peach / Nectarine (cut into wedges)

Filling Ideas

Any nut butter, Cream Cheese, Cottage Cheese, Hummus, Mashed avocado/guacamole, Greek Yoghurt, Other dips/spreads (beetroot dip, carrot hummus, bean dip, mint yogurt dip etc)

Ant Ideas

Raisins, Other dried fruit (apricot, dates, figs, pineapple etc) cut into raisin-sized pieces, Peas, Sweetcorn,Olives,Cherry tomatoes, Grapes, Blueberries, Seeds, Nuts

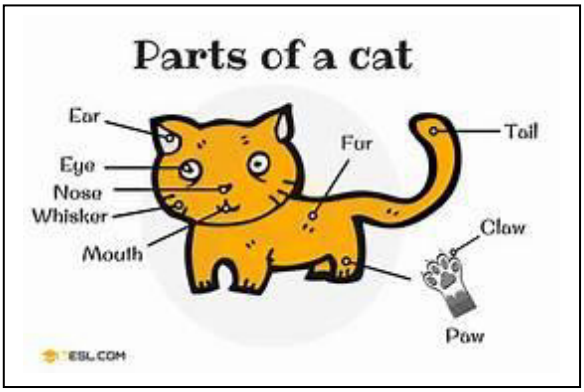
Week:	Nature Explorers
Subject:	Art, Science
Title:	Leaf Rubbing
Supplies Needed:	Leaves from different plants Plain white typing paper (do not use construction paper; it is too heavy) A few sheets of newspaper Crayon
Duration of Lesson:	30 Minutes
Teacher Will:	What shapes do you see? What parts do you see? How are leaves the same? How are leaves different? [Some useful vocabulary: petiole (stalk), veins, simple leaf, compound leaf.] Collect leaves from several plants. Lay a few layers of newspaper on a table or other smooth, flat surface. Lay one or more leaves on the newspaper, textured side up, and cover the leaves with the typing paper. Remove the paper from the outside of the crayon, and, using the flat edge of the crayon, rub gently but firmly across the leaves. (This step is easier with a short piece of crayon.) On the paper should be appearing images - rubbings - of the leaves. Cut carefully around each leaf rubbing so that you can sort and group the individual leaves. Carefully observe the rubbings and think about the research questions above. Group and re-group the leaves in as many ways as you can think of: size, shape, texture, similar parts, etc.
Students Will:	Explore, collect, and recognize various leaves and leaf patterns.

Week:	Nature
Subject:	ELA- Communication Skills
Title:	The Blindfold Game
Supplies Needed:	Blindfold Pins Foam Balls
Duration of Lesson:	30-45 Minutes
	Sightless Shootout Objective: Blindfolded player knocks down pin with a foam ball and verbal cues from sighted partner. Equipment: Blindfolds, pins and foam balls Directions: Partner up your students with a blindfold, pin and foam ball for each pair. Create 2 lines for one of each pair to stand on. Have sighted partner place the pin at their feet and the blindfolded partner has the pin. Variation: Sighted partner stand next to the blindfolded partner to coach- less shouting. Have them throw balls at pins instead of rolling. Add pins to knock over. Cross the Path Objective: Sightless players move across a field of obstacles while being verbally coached from the sidelines of sighted players. Equipment: Blindfolds and pins Directions: Divide class into 2 groups. Give half of each group blindfolds. Set up area with pins scattered around. Blindfolded players line up at one end and sighted players are on the sidelines. Blindfolded players must traverse the field without knocking down the pins. If player knocks over a pin, they must start over. Once across, switch positions. Variations: Add more obstacles such as hurdles, rolling balls, or a tunnel to crawl through. If one player knocks over a pin, all must start over. Have blindfolded players hold hands in groups of 3 or 4.

	Pin Count Objective: Sightless players traverse an obstacle course to retrieve pins. Equipment: Blindfolds and pins and items for obstacle course Directions: Create 2-4 groups of teams. Half of each team is provided blindfolds. The other half will coach their teammates through the obstacle course. The area of play should have 3-5 pin areas where the blindfolded player must collect a pin on each turn. Once they have

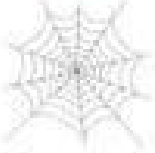
	gotten a pin, they should return to their group and switch places. Variation: Have more blindfolded players on the course at one time, add more obstacles, teammates can coach from sidelines or by following them or in front of them.
Students Will:	Participate in cooperation games.

Week:	Nature
Subject:	Science, Fine Arts
Title:	Favorite Plant and/or Animal Display
Supplies Needed:	Paper Markers Crayons Pencils/Pens Magazines or images from internet Various crafting supplies
Duration of Lesson:	varies
Teacher Will:	Instruct students to draw a diagram of their favorite plant or animal and have them label as many parts as they can of their chosen diagram. Make sure they include real, accurate colors; labels, and a title. Students can also create a 3d model of their animal/plant of choice using various crafting supplies provided. Allow students to be as creative as they wish. This project can take multiple days if the children are engaged.
Students Will:	Create a scientific diagram. Use various art mediums to express knowledge through creation.



Week:	Nature
Subject:	Science
Title:	Scavenger Hunt
Supplies Needed:	Nature Scavenger Hunt Checklist
Duration of Lesson:	30-45 Minutes
Teacher Will:	Discuss with children what they think the difference between living and nonliving things is. When they are done sharing their thoughts, let them know what it means to be alive. Living things: Need food, water, and air Move on their own. Grow and reproduce. Pass out nature hunt checklist. Children can then go outside to start their scavenger hunt. Regroup with children back inside and check in. What items were they able to find? Did they find more living or nonliving? How do they know which is which?
Students Will:	Classify items as living or nonliving.

Nature Scavenger Hunt Checklist

- [ ]  Snail
- [ ]  Mushroom
- [ ]  Ants
- [ ]  Bird
- [ ]  Flower
- [ ]  Ferns
- [ ]  Rock
- [ ]  Butterfly
- [ ]  Pinecone
- [ ]  Spider web

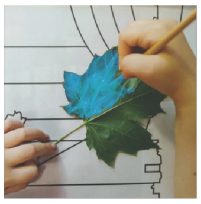
LEAF PRINTS

SUPPLIES

- Leaves
- Scissors
- Paper
- Tempra Paint

INSTRUCTIONS

Step - Get some leaves! Using your scissors, gently cut a few from healthy plants or trees. Not more than two or three though, we want to keep the plants green and healthy.



Step 2 - Carefully paint one side of a leaf. Choosing any colors you like.

Step 3 - Carefully place the painted side of the leaves on the paper. Gently push the leaf to 'print' it onto the paper.

Step 4 - Continue painting and pressing leaves until you have completed your piece. *If overlapping leaf prints, allow time for drying so that you do not smear any paint.*

Step 5 - Get even more creative! Draw or paint landscapes, rainbows or other backgrounds before pressing the leaves. Use the leaf pressings to create leaf people, animals or other objects. Let your imagination guide you!

LEAF RUBBINGS

SUPPLIES

- Leaves
- Scissors
- Paper
- Crayons

INSTRUCTIONS

Step - Get some leaves!

Step 2 - Place your leaves flat on the table with the veins facing up. Now without moving the leaves, place another piece of paper on top of them. *Lightly taping the leaves in place may help to keep them from moving.*

Step 3 - Remove the paper from a crayon and gently begin coloring the paper with the side of the crayon. As you 'rub' over the leaves, you'll notice they are appearing on your paper!

Step 4 - Get even more creative! Use colors you might not normally see in nature!

Step 5 - All done? Don't throw the leaves away! Put them in your compost bin. *Or better yet, use your homemade plant press to dry them out.*

Summit Metro Parks

MAKE A PLANT PRESS

Build your very own plant press using your backyard explorers kit box.

SUPPLIES

- Backyard Explorers Kit Box or other corrugated cardboard
- Scissors or Box Cutter
- Newspaper
- Rope or Twine
- Various Plants
- Blotting Paper (Optional)

INSTRUCTIONS

Step - Carefully cut the lid off the box, removing the sides so you end up with an 8" x 11" rectangular piece of cardboard. Then cut ***all*** the sides off the remainder of the box creating *two* 8" x 11" rectangular pieces of cardboard. *Ask an adult for help if needed!*

Step 2 - Head outside and search for a few leaves or flowers to dry in your plant press. *Only remove two to three leaves or flowers from healthy plants.*

Step 3 - Cut or fold newspaper the same size as the cardboard and gently lay your specimens flat between the sheets. You can stack several pieces on top of each other. *Do not overlap plants in the newspaper though, as they may not dry well and could get moldy.*

Step 4 - Sandwich the newspaper between the cardboard pieces. Tie two pieces of twine or yarn around the cardboard to keep the plants in place. Lay your press flat under some books or heavy objects.

Step 5 - Check on your plants once a day to make sure they are drying out. If necessary, change the newspaper out. You can add a layer of blotting paper between the newspaper layers to help absorb moisture.

Step 6 - Once the plants are dry, do something fun with them! You can mount them on paper with regular craft glue and put them in a frame. You can also put them in contact paper and create bookmarks. Start a plant collection and put all the mounts in a binder with labels so you know exactly what each species is. Share your collection with friends and family! *Feeling extra creative? Decorate your plant press covers! Draw or paint some plants or create some other nature inspired art.*





Summit Metro Parks

How to Make a MILK CARTON BIRD FEEDER

Family Fun Activity

Building bird feeders from recycled materials is a great way to feed the birds and help keep our environment healthy. It is a fun and easy project for the whole family and a great way to get interested in watching birds.

SUPPLIES

Clean 2-liter milk carton with cap
Craft knife
Nail
Paint stir stick
Scissors
Wire (twine or an old boot lace also works)

INSTRUCTIONS

Step - Cut two slots about 2 inches from the bottom in the milk carton using a craft knife as shown in the picture (an adult will need to assist with this part).

Step 2 - Slide the stir stick through the slots.

Step 3 - About ½ inch above each slot, make a make a small horizontal cut (This will also require adult supervision). Then use scissors to cut a hole on each side to let the birds get the seed (refer to picture for guidance).

Step 4 - Using the nail, poke 4 holes in the bottom for drainage.

Step 5 - Use the nail again to poke two holes on opposite sides just below the cap.

Step 6 - Run wire through the holes and join the ends at the top.

Step 7 - *Congratulations* You just made a backyard bird feeder.

Step 8 - Now add some bird seed and find a place to hang your feeder and sit back and watch. *Please know it may take a couple of days for the birds to find your feeder.*

Pollution Experiment

In today's world we make it a point to raise our children to be environmentally conscious. We teach them to treasure the Earth, and the animals and plants that live here with us. And at a very early age, your child is learning terms like "pollution", "recycle", "organic" and "earth-friendly".

Because of this early, environmentally-conscious outlook, kids tend to look at our planet in a rather protective way. Often even the youngest kids notice that factories, cars, and trucks put smoke and smog into the air we breathe. This activity helps your child become even more aware of what happens when pollution enters our air, and reinforces her love of the environment, which we all should share.

What You Need:

- 3 1-quart jars with lids
- Measuring cup
- 3 small potted green plants
- Vinegar or lemon juice
- 6 labels or strips of masking tape
- Pen or marker
- Spiral or composition notebook
- Pencil
- Crayons

What You Do:

1. Begin this activity by discussing with your child what some of the different uses of water are. Ask her why she thinks we need clean water. Be sure to remind her that we all need clean water not only for drinking and bathing, but also for growing the crops we use to feed ourselves and the animals that live on earth with us.
2. Talk to her about the ways in which our air can be polluted. Give some examples of pollution she may have seen in your area, like the exhaust from your car or a factory on the side of the highway. Explain to her how pollution in the air travels up into the raindrops in the clouds in the sky. This means that our rain can become polluted too, which can sometimes lead to what is known as "acid rain." Note: There are many books that explain this concept as well if you would like to do some extra research! Perhaps you can read one these books and have this discussion with her as you read. (A great book to try is *What Causes Acid Rain?* By Issac Asimov)
3. Next, explain that you are going to do an experiment that will show what acid rain does to plants. It will also show how important it is to have clean water for plants and animals.
4. Before you begin the experiment, use your pen and the labels or masking tape to label each jar and each plant. Label the first plant and jar "a little acid". Label the next plant and jar "a lot of acid". Finally label the third jar and plant, "plain water."
5. Next, you will need to mix the water for the plants. Begin by explaining that the vinegar (or lemon juice) is an acid just like the acid that gets in the raindrops from the pollution in the air caused by the factories, cars, and trucks we have here on earth.
6. Mix the water for the plant that will get "a little acid" by measuring ¼ cup of vinegar or lemon juice and placing it into the jar labeled "a little acid" and fill the rest of the jar with tap water.
7. For the plant receiving "a lot of acid", pour 1 cup of the vinegar or lemon juice into the jar and fill the rest with tap water.
8. Fill the third jar, labeled "plain water", just with tap water.
9. Next, have her create her "Observation Journal" using the spiral or composition notebook. Label the first page with today's date and have her draw a picture of each plant with each of their corresponding labels. You may want to have her write or dictate a sentence or two describing each plant's appearance, which at this point should be the same for all three plants: green and healthy.
10. Water each plant (being sure to use only about a 1/4 of the jar each time at the most) with the water from the corresponding jar containing either a lot of acid, a little acid or plain water.
11. Every two or three days continue to water the three plants using the water from the original jars. Be sure to make note of and discuss which plant looks best. Which one looks the worst? How do the plants differ in color? Continue to have her record all of her observations in the journal by drawing and writing what she sees after each watering.
12. Water and observe the plants for at least one week. Throughout the experiment, discuss the changes that have occurred in the three plants and ask her why she thinks the results turned out the way they did.
13. At the end of the experiment, talk with her about which plant is the healthiest and which plant is the least healthy, working with her to reach a conclusion about what happened to the plants. Have her record all of her conclusions in her journal.
14. Assist her in making the connection between this experiment and our own environment and the effects of acid rain in our world.

This experiment is not only interesting, but it's a simple way you and your child can explore the sometimes-complicated concepts of pollution and its environmental consequences. Along the way, you might even inspire her to get excited about making some "green" changes in her life!