

# **Kids' Activity Guide:**

Join Nancy Elizabeth Wallace on a journey of discovery and explore your surroundings with your child. Nancy Elizabeth Wallace uses a unique cut-paper approach in her illustrations that will engage your child. Charming characters and an interactive text will have your child eager to learn about the environment. Each book is filled with a variety of activities that will allow your child to experience the topics firsthand.

This Common Core Standards Guide will cover the following books by Nancy Elizabeth Wallace: Water! Water! Water! Seeds! Seeds! Seeds!; Leaves! Leaves! Leaves!; and Recycle Every Day! In Water! Water! Water!, your child will learn all about water, from evaporation to conservation. Seeds! Seeds! Seeds! is a study on seeds and how they grow. Your child will identify different varieties of seeds and determine how and why they develop into plants. Leaves! Leaves! Leaves! introduces your child to chlorophyll and explains why leaves change color. Recycle Every Day! invites your child to help the environment by learning to recycle. Your child will also learn how to involve others in recycling.

# **Pre-reading Questions:**

### Water! Water! Water! questions:

- 1. What would we do without water?
- 2. What is an experiment?
- 3. Why is water important?

### Seeds! Seeds! questions:

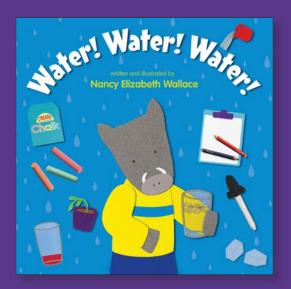
- 1. What is a seed?
- 2. What makes seeds grow?
- 3. Can you eat seeds? Which kind?

### Leaves! Leaves! questions:

- 1. Why do leaves change colors?
- 2. What shapes can leaves be?
- 3. How do plants eat?

### Recycle Every Day! questions:

- 1. What is recycling?
- 2. What happens to your trash after you throw it away?
- 3. What are some things you can recycle?



### Water! Water! Water!

Accompany Walter the warthog and his friend Willa as they observe the many forms of water. Walter sees water everywhere: in the bathtub, from the garden hose, from the sky as rain. As Walter and Willa conduct some science experiments, they discover cool things about water: water evaporates, ice floats, water can bring a dying plant back to life, and more. Water! Water! Water! is filled with experiments and fun facts about water.

Water! Water! Water! includes experiments on surface tension, evaporation, capillary action, and one experiment on water changing states from liquid to ice. Below are a couple of supplementary activities.

# **Capillary Action Activity:**

Water is very important to both humans and plants. It helps transport nutrients throughout all parts of the plant. Water actually travels upward through the plant from the roots using a process called capillary action. This activity will allow your child to observe capillary action at work. Help your child follow the directions below.

### **Materials:**

Long-stemmed white carnation flowers

Clear glasses

Water

Food coloring

Scissors

### **Procedures:**

- 1. Fill the cup about two-thirds of the way to the top with water.
- 2. Add a different food coloring to each cup of water until each color is dark (6-9 drops).
- 3. Using scissors, cut the bottom of the flower stem so that it remains upright in the glass.
- 4. Let the stalk sit overnight, but have your child observe it throughout the day.
- 5. The colors will travel up through the flower and change the color of the flower. This is due to capillary action.

# **Surface Tension Activity:**

In this activity, your child will explore the properties of surface tension. He/she will learn what surface tension is and examine how solid objects affect it.

### **Materials:**

Plastic wrap

Drinking straw

Sugar, salt, and pepper

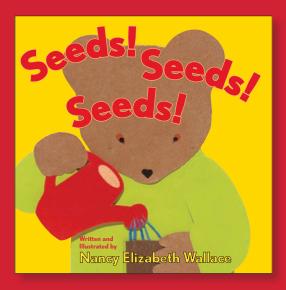
Plastic cup filled halfway with water

### **Procedures:**

Help your child conduct the following experiments and answer the associated questions.

- 1. Use the straw to drip a few drops of water on a sheet of plastic wrap. What is the shape of the drop?
- 2. Move drops around with a straw. Do the drops change when moved?
- 3. Move one of the drops close to another one with a straw. What happens when two drops meet?
- 4. Put a small amount of either salt, pepper, or sugar on one of the drops. Does the shape change? Try this again with each of the solids.

Water! Water! 2



### Seeds! Seeds! Seeds!

Buddy gets five colorful bags in the mail from his grandfather. Buddy finds a surprise in each bag, and with each surprise he discovers something wonderful about seeds. With his mother's help, Buddy studies the amazing world of seeds! He learns how seeds grow and germinate and how to identify different kinds of seeds.

In Seeds! Seeds! Seeds!, your child will learn all about seeds. Below you will find a set of cards showing how seeds grow and an activity on growing chia heads.

# **How Seeds Start to Grow:**







# leaves





# **Chia Head Activity:**

Your child will get to put his/her seed knowledge into practice by growing plants. Chia seeds are simple seeds to grow since they only need water and a few days to fully sprout.

### **Materials:**

Packet of chia seeds Small white cup Cotton balls Water

### **Procedures:**

- 1. Place several cotton balls in the cup.
- 2. Pour enough water over the cotton balls to make them damp.
- 3. Sprinkle chia seeds over the cotton balls.
- Place in an area with some sunlight, and water daily to keep the cotton balls damp.
- 5. Once the chia starts to grow, have your child decorate a face on the cup. He/she will have a chia head ready for a haircut!

Seeds! Seeds! Seeds! 3



### Leaves! Leaves! Leaves!

Come along with Mama and Buddy Bear as they stroll through the seasons and examine the development of leaves. Mama, a treasure trove of tree facts, shares Buddy's love of leaves and encourages him to use his eyes and hands to explore how a tree produces, maintains, and then sheds its foliage. Leaves! Leaves! will introduce your child to the ins and outs of chlorophyll and will explain how trees change with the seasons.

# **Leaf Observation Activity:**

There are a wide variety of leaves to observe. Take your child on a trip outside and use the worksheet to take a scientific look at the leaves that he/she finds. After examining the leaves, you and your child can complete the Rub-A-Leaf activity on the last page of *Leaves! Leaves!* 

# **Vocabulary:**

**Carbon Dioxide (CO2)** – An invisible gas in the air used by leaves to make food.

Chlorophyll – The green chemical in leaves that changes the sun's energy, carbon dioxide (CO2), and water and nutrients from the soil into food.

Photosynthesis – What happens when chlorophyll in leaves changes the sun's energy, carbon dioxide (CO2), and water and nutrients from the soil into food. Photo means "light," synthesis means "change."

**Veins** – Tubes that carry water, nutrients, and food in leaves. They also spread the blades wide to catch the sun's energy. The blade is the flat part of a leaf.

# **Create a Plaster Leaf Activity:**

In this science activity, your child will create a plaster leaf using plaster of paris.

### **Materials:**

Paper plate

Plaster of paris (enough to fill plate)

One or two leaves

### **Activity:**

Give your child a paper plate filled with wet plaster of paris. He/she will press the leaf/leaves into the plaster. After making the impression, the leaf/leaves can be removed from the plaster. Place the plates of plaster in a safe area to dry for a day or two.

The shape of your leaf/leaves and the details of the veins will be recreated in the plaster. If desired, the leaves can be decorated with paint or markers.

Leaves! Leaves! 4

# **Leaf Observation Worksheet**

Draw a sketch of your leaf here.  Length:  Width:  Color:  Shape:  I found my leaf  My leaf smells like  points on it.	e:		Date:
Length:			
Width:  Color:  Shape:  I found my leaf  My leaf smells like		Draw a sketch of your leaf	f here.
Width:  Color:  Shape:  I found my leaf  My leaf smells like			
Color: Shape: I found my leaf My leaf smells like	Length:		
Color: Shape: I found my leaf My leaf smells like	Width:		
Shape:  I found my leaf  My leaf smells like			
I found my leaf	Color:		
I found my leaf	Shape:		
My leaf smells like			
	I found my leaf _		
My leaf has points on it.	My leaf smells lik	re	
My leaf has points on it.			
	My leaf has	points on it.	

Leaves! Leaves!



# Recycle Every Day!

Minna the bunny wants to win the Community Recycling Calendar Contest. She knows a lot about recycling but just can't come up with the perfect idea for her poster. Minna's family helps her find inspiration as they share their own recycling efforts. Recycle Every Day! is filled with games, activities, and recycling suggestions. Your child will learn how to recycle and how to spread the word about the benefits of recycling.

# **Minicompost Pile Activity:**

Composting is a process that occurs when microscopic organisms break down old plant and animal tissues and turn them into new soil. In this activity, your child will create and observe a minicompost pile. Your child will create a notebook and observe the compost pile weekly.

# Materials (per group):

Two-liter bottle (clear)

1 sandwich bag—full of organic food waste (vegetable peels, fruit peels, seeds, eggshells, nutshells, etc.) \*No dairy or meat, as they will smell.

1 sandwich bag—full of organic garden waste (grass clippings, wood chips, straw, leaves, weeds, etc.)

Several nonbiodegradable items (plastic, aluminum foil, styrofoam, etc.)

Dark soil

Aluminum foil or plastic wrap

Rubber band

Spray bottle with water

### **Notebook Procedures:**

Your child will start by predicting what will happen to the three types of items that will be placed in the pile: organic food waste, organic garden waste, and nonbiodegradable items. Once or twice a week, your child will date the journal and write an observation of the pile, noting what is happening to the three types of items. This entire process will take between one and three months.

## **Minicompost Pile Procedures:**

- 1. Cut the top off the plastic bottle at the point where it begins to taper.
- 2. Fill the bottom of the bottle with soil.
- 3. Add three to four layers of organic waste, kitchen waste, and nonbiodegradable items. After each layer, spray the mixture lightly with water.
- 4. Pour a layer of dirt between each layer, making sure they are not tightly packed.
- 5. Poke the side of the bottle to create small holes.
- 6. Cover the top of the bottle with aluminum foil or plastic wrap and use the rubber band to hold it in place. Puncture the top several times for ventilation.
- 7. Stir the bottle once a week by shaking it gently.
- 8. At the end of your composting period of one to three months, have your child review the journal and discuss.

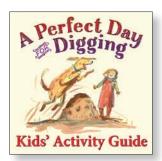
Recycle Every Day!

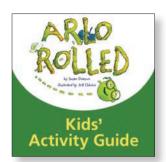
# **Explore Nature**

with Nancy Elizabeth Wallace

# Click on the Kids' Activity Guides below for more fun!













This guide was created by Chris Valcarcel, educational consultant, and Jennifer Messinger, graphic designer.

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