

**Description:** Children will draw and color on coffee filters and then experiment with how water changes their images.

## Materials

- Markers
- Coffee Filters
- Water
- Cups
- Droppers

## Set Up

- Place coffee filters and markers out on the table.
- Let the children draw on their coffee filter.
- Guide the children to use the droppers to drop water onto their picture.

## Head Start Early Learning Outcome Framework Alignment

- **Goal P-SCI 1.** Child observes and describes observable phenomena (objects, materials, organisms, and events).

DEVELOPMENTAL PROGRESSION		INDICATORS
36 to 48 Months	48 to 60 Months	By 60 Months
Uses the five senses to observe objects, materials, organisms, and events. Provides simple verbal or signed descriptions. With adult support, represents observable phenomena, such as draws a picture.	Makes increasingly complex observations of objects, materials, organisms, and events. Provides greater detail in descriptions. Represents observable phenomena in more complex ways, such as pictures that include more detail.	<ul style="list-style-type: none"> <li>• Identifies the five senses (smell, touch, sight, sound, taste) and uses them to make observations.</li> <li>• Uses observational tools to extend the five senses, such as a magnifying glass, microscope, binoculars, or stethoscope.</li> <li>• Describes observable phenomena using adjectives and labels, such as lemons taste sour and play dough feels sticky.</li> <li>• Represents observable phenomena with pictures, diagrams, and 3-D models.</li> </ul>

● **Goal P-SCI 2.** Child engages in scientific talk.

DEVELOPMENTAL PROGRESSION		INDICATORS
36 to 48 Months	48 to 60 Months	By 60 Months
Begins to use scientific vocabulary words with modeling and support from an adult. Sometimes repeats new words offered by adults.	Uses a greater number of scientific vocabulary words. Repeats new words offered by adults and may ask questions about unfamiliar words.	<ul style="list-style-type: none"> <li>• Uses scientific practice words or signs, such as observe, describe, compare, contrast, question, predict, experiment, reflect, cooperate, or measure.</li> <li>• Uses scientific content words when investigating and describing observable phenomena, such as parts of a plant, animal, or object.</li> </ul>

These images have been adapted from: U.S. Department of Health and Human Services, Administration for Children and Families. "Head Start Early Learning Outcome Framework." *Head Start Early Learning Outcome Framework*, Office of Head Start. <https://eclkc.ohs.acf.hhs.gov/sites/default/files/pdf/elof-ohs-framework.pdf>

### Suggestions for Teaching

Depending on the age of the children, this activity will look different. This is an open ended and exploratory activity, there is no wrong way to do it! Keeping that in mind, here are some suggestions:

Here are some activity extensions and adaptations:

- Try layering the different marker colors and then adding water.
- Experiment with dropping the water on different spots on the coffee filter.
- Explore using markers from different companies or using food coloring.

**Description:** Families will explore leaf shapes and sizes by using leaf templates and crayons.

## Materials

- Leaf templates
- Paper
- Crayons

## Set Up

- Give each child a leaf template, piece of paper, and crayon.
- Encourage them to make a leaf rubbing.

## Head Start Early Learning Outcome Framework Alignment

- **Goal P-SCI 1.** Child observes and describes observable phenomena (objects, materials, organisms, and events).

DEVELOPMENTAL PROGRESSION		INDICATORS
36 to 48 Months	48 to 60 Months	By 60 Months
Uses the five senses to observe objects, materials, organisms, and events. Provides simple verbal or signed descriptions. With adult support, represents observable phenomena, such as draws a picture.	Makes increasingly complex observations of objects, materials, organisms, and events. Provides greater detail in descriptions. Represents observable phenomena in more complex ways, such as pictures that include more detail.	<ul style="list-style-type: none"> <li>• Identifies the five senses (smell, touch, sight, sound, taste) and uses them to make observations.</li> <li>• Uses observational tools to extend the five senses, such as a magnifying glass, microscope, binoculars, or stethoscope.</li> <li>• Describes observable phenomena using adjectives and labels, such as lemons taste sour and play dough feels sticky.</li> <li>• Represents observable phenomena with pictures, diagrams, and 3-D models.</li> </ul>

● **Goal P-SCI 2.** Child engages in scientific talk.

DEVELOPMENTAL PROGRESSION		INDICATORS
<b>36 to 48 Months</b>	<b>48 to 60 Months</b>	<b>By 60 Months</b>
Begins to use scientific vocabulary words with modeling and support from an adult. Sometimes repeats new words offered by adults.	Uses a greater number of scientific vocabulary words. Repeats new words offered by adults and may ask questions about unfamiliar words.	
		<ul style="list-style-type: none"> <li>• Uses scientific practice words or signs, such as observe, describe, compare, contrast, question, predict, experiment, reflect, cooperate, or measure.</li> <li>• Uses scientific content words when investigating and describing observable phenomena, such as parts of a plant, animal, or object.</li> </ul>

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### Suggestions for Teaching

Depending on the age of the children, this activity will look different. This is an open ended and exploratory activity, there is no wrong way to do it! Keeping that in mind, here are some suggestions:

Here are some activity extensions and adaptations:

- Have the children collect different leaves during a walk outside and use them to make rubbings.
- Encourage the children to sort the leaf templates by size or shape before making their drawings.
- Experiment with rubbing heavy-duty aluminum foil over the plates to make leaf impressions.

**Description:** Children use white crayons to make patterns on white paper and paint over it to see the patterns.

## Materials

- Paper
- White crayons
- Water color paint
- Paintbrushes

## Set Up

- Invite children to draw different designs on their paper.
- Have them paint over their pictures with the watercolors.

## Head Start Early Learning Outcome Framework Alignment

- **Goal P-SCI 1.** Child observes and describes observable phenomena (objects, materials, organisms, and events).

DEVELOPMENTAL PROGRESSION		INDICATORS
36 to 48 Months	48 to 60 Months	By 60 Months
Uses the five senses to observe objects, materials, organisms, and events. Provides simple verbal or signed descriptions. With adult support, represents observable phenomena, such as draws a picture.	Makes increasingly complex observations of objects, materials, organisms, and events. Provides greater detail in descriptions. Represents observable phenomena in more complex ways, such as pictures that include more detail.	<ul style="list-style-type: none"> <li>• Identifies the five senses (smell, touch, sight, sound, taste) and uses them to make observations.</li> <li>• Uses observational tools to extend the five senses, such as a magnifying glass, microscope, binoculars, or stethoscope.</li> <li>• Describes observable phenomena using adjectives and labels, such as lemons taste sour and play dough feels sticky.</li> <li>• Represents observable phenomena with pictures, diagrams, and 3-D models.</li> </ul>

● **Goal P-SCI 4.** Child asks a question, gathers information, and makes predictions.

DEVELOPMENTAL PROGRESSION		INDICATORS
36 to 48 Months	48 to 60 Months	By 60 Months
Asks simple questions. Uses adults as primary resources to gather information about questions. With adult support and modeling, makes simple predictions, such as "I think that the golf ball will be heavier than the ping pong ball."	Asks more complex questions. Uses other sources besides adults to gather information, such as books, or other experts. Uses background knowledge and experiences to make predictions.	<ul style="list-style-type: none"> <li>Asks questions that can be answered through an investigation, such as "What do plants need to grow?" or "What countries do the children in our class come from?"</li> <li>Gathers information about a question by looking at books or discussing prior knowledge and observations.</li> <li>Makes predictions and brainstorms solutions based on background knowledge and experiences, such as "I think that plants need water to grow." or "I think adding yellow paint to purple will make brown."</li> </ul>

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### Suggestions for Teaching

Depending on the age of the children, this activity will look different. This is an open ended and exploratory activity, there is no wrong way to do it! Keeping that in mind, here are some suggestions:

Here are some activity extensions and adaptations:

- For younger children, pre-draw patterns in crayon and let them do the painting.
- Invite children to write secret messages to each other and then use watercolors to reveal what was written.
- Try using white oil pastels instead of white crayons.

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