**Teacher’s Guide to the Seasons and Cycles Tour:**

**PRE- and POST- VISIT ACTIVITIES**

Our Seasons & Cycles Tour is designed for students from kindergarten through 2nd grade. The following activities and vocabulary cover a wide range of skills and knowledge levels. Please use them as you see fit to make your visit more enjoyable and educational.

Prior to your visit to the Arboretum, students should know:
- The four seasons and their characteristics, and repetitive cycle.
- Living things may be plants (like trees) or animals (like human).
- Living things can make more things like themselves (reproduce).
- Plants can make their own food, animals depend on plants for their food.
- Plants need water, food, air, and sunlight to grow.

**Suggested Pre-Visit Activities:**

1. Label the parts of the tree. (make copies of attached sheet)
2. Word search (make copies of attached sheet – choose which level is appropriate.)
3. Complete the mini scrapbook of a tree in the four seasons. (make 2-sided copies using the front and back sheets.)
5. Force a branch to bloom by bringing a cutting with buds inside in late winter. Crush the end of the branch and put it in a vase of water. Watch as leaves or flowers come out. (Try forsythia, cherry or crabapple)
6. Place bulbs in water and watch them produce roots.
7. Cut the top off of a carrot, put it in water, and watch it grow.
8. Bark rubbings, Leaf rubbings.
**Suggested Post-Visit Activities:**

1. Send us a letter sharing what was learned at the Arboretum. (See attached letter from John and Lydia)
2. Write a story that includes all the different ways people use plants.
3. Make a collage or a plant cast of items collected in a neighborhood or park.
4. Collect seeds and notice how different shapes affect dispersal. (Maple seed, Acorn, dandelion seed.)
5. Sort collected items according to shape, color, size, texture, etc.
6. Cut up fruit to see the seeds. Cut up a flower to see the ovary.
7. Watch a flowering plant, study pollination, and the fruit production cycle.
8. Encourage children to read books related to nature and share their reading with the class.
   (May be done as a pre-visit activity.)

**Resources**


Pre-visit activity #1

Label the parts of the tree.
Bark, branch, bud, flower, fruit, leaf, root, trunk.
Pre-visit activity #2

Down  |  FLOWER  |  FOOD  |  TREE  |  WATER

Across |  AIR  |  BUD  |  FRUIT  |  LEAF  |  ROOTS  |  SEED

Left over letters spell one more thing that plants need to grow.

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Pre-visit activity #2

Vocabulary:

**Horizontal**
- BUD
- ROOT
- SEED
- SPRING
- SUMMER
- SUN
- TRUNK
- TWIGS

**Vertical**
- BARK
- CYCLE
- FALL
- FRUIT
- LEAF
- NUTS
- WINTER

**Diagonal**
- BRANCH
- FLOWER
- SEASONS

Left over letters spell the word “Arboretum.”
Pre-visit activity #2

Vocabulary:

**Vertical**
- BERRY
- CYCLE
- DORMANT
- EVERGREEN
- NEEDLES
- NUT
- SUMMER

**Horizontal**
- SUN
- POLLEN
- ROOTS
- TRUNK
- WINTER
- WOOD

**Diagonal**
- BARK
- BRANCH
- FLOWER
- FOREST
- FRUIT
- LEAF

Left over letters spell the names of the people who started our Arboretum.

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Seasons and Cycles #3
Pre-visit activity

It's ________ (season) now.

Find your favorite tree.

Does it have flowers?

Does it have leaves?

Does it have fruit?

Does it have buds?

Visit your favorite tree in different seasons.

Draw your favorite tree here.

Date ____________

Morris Arboretum of the University of Pennsylvania
The official arboretum of the Commonwealth of Pennsylvania

Students will be able to

- collect and classify plant material such as flowers, seeds, leaves, and buds.
- observe plant characteristics and predict changes with each season.
- compare seasonal changes in plants to the cycle of activities in a human's day.

For grades K-2
Dear teachers

This attached letter is a lead-in for a post-visit activity for the students who are going to visit our arboretum for the Seasons & Cycles tour. The aim of this activity is for children to review their visit and make it more meaningful. Please read the letter to the students before your visit so that they know they will be responding to the letter.

Background information

We have designed a letter that might be sent by John and Lydia Morris who owned Morris Arboretum as an estate about 100 years ago. They traveled and collected plants from all over the world. They always wanted to share their plants with other people. After their death, the Arboretum was donated to the University of Pennsylvania. Since then, education became part of our mission and we regularly invite school children to visit the Arboretum. Today, John and Lydia’s bronze sculptures are on a slope near the Sugarman’s Sculpture at our Arboretum to remind us of them.

We hope you enjoy your trip to our Arboretum.

Thank you very much!

Education Staff
Morris Arboretum
Dear __________________________

Come visit us and see our beautiful trees at Morris Arboretum. When we first planted our garden over 100 years ago, we hoped that children like you would come and see our place. When you come to the Arboretum, make sure you stop by and say hello to us on the slope near the big colorful Sugarman’s Sculpture.

We have a big favor to ask you since we can no longer walk around our garden. After your visit, let us know what our trees are doing and what you discovered at our arboretum. You may use pictures and words.

We are looking forward to your visit.

John & Lydia Morris
John and Lydia Morris