

Huron County Wilderness Arboretum

Seeds

Lesson Plan

Level: 1st and 2nd Grade

Developed by Bob Tallman with partial funding from the Huron County Nature Center.

Program Description: Students will visit two or more habitats at the Nature Center. Students will explore the habitats looking for examples of seed plants

MEAP Objectives:

SCI III.2.3: Describe life cycles of familiar organisms.

SCI III. 2 4: Compare and contrast food, energy, and environmental needs of selected organisms.

SCI III 2. 5: Explain the functions of selected seed plant parts.

Pre-Visit Suggestions:

1. Be sure that every student is dressed for the weather conditions. Layers work best. Tell them to wear shoes that can get muddy.
2. Remind the students to take only memories, leave only footprints.
3. Some things may be collected for a classroom display at the discretion of the leader.

Visit:

Students will be shown seed plants and collect seeds by various means. They will examine the inside of a seed and take seeds back to the classroom to plant.

1. Screen a soil sample looking for seeds.
2. Drag a cloth through a field area to see whether any seeds attach themselves to the cloth.
3. Examine the ground looking for sprouting seedlings (spring) and dig up the small plant to see if the seed is still attached. Replant the seedling.
4. Look for seeds in fruit or attached to trees. (Or cut open an apple)

5. Cut open a seed and examine it for parts: embryo plants (embryonic leaves, stems and roots), stored food, and seed coat.
6. Examine 2 year old pine cones finding the seeds. If first year male and female cones are available, observe them.
7. Take a cup of soil from the Nature Center to the classroom to observe.
8. Soak seeds in water. What will happen?
9. Take seeds back to classroom to plant. (Some could be soaked first.)
10. In the classroom, make observations as seeds sprout.

➤ **Spring:**

- Adult plants, flower parts, young plant seedlings
- Seeds on trees
- Seeds in soil samples

➤ **Summer:**

- Plant seed pods, adult plants
- Fruit
- Moss fruiting bodies containing spores (Not seed plants)
- Ferns with sori containing spores (Not seed plants)
- Seeds on trees
- Seeds in soil samples

➤ **Fall:**

- Different seeds (look at dispersal), adult plants
- Fruit
- Difference between annuals, biennials, and perennials
 - Mullen – adult, first year plants, seed on dying plants
 - Fruit with seeds, adult plants
- Seeds on trees
- Seeds in soil samples

➤ **Winter:**

- Witch Hazel flowers or seeds on the snow
- Pine cones

➤ **Any season:** pine cone with seeds, small pine trees, male and female cones

Post-Visit Suggestions:

- Plant seeds and observe them.
- Put soaked seeds into a ziplock bag with one sheet of moist paper toweling (smooth). Keep toweling moist. Hang the bag on a bulletin board and observe. (Seeds will sprout and then start to mold so throw away the whole bag without opening in the classroom.)
- Observe whether any plants grow from the seeds hidden in the soil sample.
- Have each student draw a picture of one of the seeds they observed labeling the parts. Students may include the parts they did not observe.
- Write Thank You notes telling what they learned about seeds.