

# Plant Types & Characteristics – Indoor Lesson

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**Grade** Second Grade (2<sup>nd</sup>)

**Lesson** Fall Indoor

**Time** 40 minutes – 1 hour

**Materials** *Overheads (from website):*

- ✓ Plant Types, Evergreen vs. Deciduous, Leaf Shapes Sheets (2 of them), Sun vs. Shade
- ✓ Quiz
- ✓ Data Sheet

*From the Portable:*

- ✓ Plant identification resource books
- ✓ Example of leaf sample & bookmark
- ✓ Copy of DO NOT PICK page with photos

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## Objective:

Plants and trees are important to the watershed because they provide homes for the wildlife and shade for the streams. Shade keeps the streams colder which is better for the salmon. Also, plants and trees along the streams prevent erosion of the stream banks and deterioration of the water quality.

## Lesson:

1. Introduce yourself.
2. Our next watershed outing is going to be looking at plant types and their characteristics in the watershed. We will be looking at the different types of plants that live in at each site because not all plants thrive in the same area. Some like it shady and wet, while others like it sunny and dry.
3. *Why are plants and trees important for the watershed?* They provide homes for the wildlife and shade for the salmon streams. Shade keeps the streams colder which is better for the salmon as they like water temperatures below 65 degrees. Plants and trees also help the soil to stay along the stream banks instead of eroding into the water; too much sediment can suffocate salmon eggs that need oxygen to survive.
4. Review the following plant types by placing the **“Plant Types”** sheet on the overhead and discuss out loud. All of these have characteristics/properties that make them unique.

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- Plant Types:
  - Tree
  - Shrub - several stemmed woody plant, usually shorter than 20 feet and can be evergreen or deciduous; *examples: Rhododendron or roses*
  - Grass - single, sword stemmed leaves of various heights and colors; *example: grass in your lawn or in a field*
  - Herbaceous plant - seed plant that lacks woody tissue and dies to the ground at the end of a growing season; *example: flowers and ferns (ie: flowers, fern)*
- 5. Place the “**Evergreen vs Deciduous**” sheet on the overhead and discuss. The different plant types can either be evergreen or deciduous.
  - Evergreen - green all year round; doesn’t lose leaves or needles; *example: pine trees or Christmas trees*
  - Deciduous - loses leaves in winter; *example: maple tree*
- 6. Place the “Shape and Arrangement” sheet on the overhead. Learning to identify plants is easier if you look at the shapes of their leaves and how the leaves grown on the stem. Place the “**Leaf Shapes**” sheet on the overhead. These are the shapes we will be focusing on. Review the leaf shapes on the handout:
  - a) Ovate - rounded on the bottom and pointed at the top. Eggs are oval in shape to help remember ovate;
  - b) Obovate – pointed side is down with the tip rounded. This is the opposite of the ovate leaf and the point is at the twig end;
  - c) Oblong – Long and skinny, might be pointed at the end like a willow leaf;
  - d) Palmate – Shaped like the palm of your hand, may have 3 – 5 fingers;
  - e) Lobed – Leaf has many lobes, like ear lobes (e.g. an oak leaf);
  - f) Needled - Many small needles growing off a central stem (ex. all pines).
- 7. Lastly, plants can be characterized by being primarily “**Sun or Shade**” plants. Place the “Sun vs. Shade” sheet on the overhead to discuss.
- 8. If you would like, you can pass out the “Quiz” to reinforce what you have discussed and then review with the class afterwards.

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9. Next, discuss what to expect for the outdoor lesson. They will be divided into small groups to complete the “DATA SHEET”. They will find leaf samples from different sites within the watershed to determine plant type, evergreen vs. deciduous, sun vs shade, inventory, and leaf shape.
  - Each student will also be able to choose ONE leaf sample to press, which will be laminated and made into a bookmark for them once dried.
  - Select samples that can be pressed (not pinecones, large berries, moss, etc.)
10. Show then the “Do Not Pick” sheet to remind them what NOT to pick, such as Poison Ivy and Stinging Nettle which will cause rashes.
11. Remind students of the date of their upcoming outing and to remember to wear a jacket or coat, long pants and boots or old shoes.
12. Return items to the portable.