

CHAPTER 2

BOTANY AND ZOOLOGY

BOTANY

SKILLS INVENTORY

Lower Elementary

Identifies the parts of plants (root, stem, leaf, flower, fruit) and how they help the plant survive and grow. Understands the needs of plants including different types of pollination.

Upper Elementary

Identifies the internal and external structures of plants and how they serve the functions of growth, survival, behavior, and reproduction.

MONTESSORI LESSONS

PURPOSES

INITIAL SERIES

The Plant

- The Story of the Plant
- Plants
- Parts of a Plant
- Needs of Plants I
- Needs of Plants II

- To give the child an appreciation of the work that plants do.
- To give the child a broad picture of botany before filling in details in future key lessons.
- To familiarize the child with the major parts of a plant: roots, stems, leaves.
- To understand that plants have certain fundamental needs.
- To introduce the child implicitly to basic principles of scientific experimentation.
- Provide children an experience linking chemistry and botany.

The Leaf

- The Leaf as a Food Factory
- Plants Grow Toward Light
- Leaves of a Plant Arrange Themselves to Get the Light
- Leaves of Plants Sometimes Need Help to Reach the Light
- Plants Release Oxygen
- Leaves Get Rid of Extra Water

- To introduce the idea that the leaf makes food for the plant.
- Provide opportunity for children to observe together the effects of light on a growing plant and introduce the word "phototropism".
- To emphasize that leaves need light in order to make food for the plant.
- To discover that some plants have developed clever methods to reach the light.
- This is a key piece of information the children need to appreciate the interdependence of plants and animals.
- To observe that plants release water into the atmosphere.

continues