

Activity Title: **SEE THE WORLD THROUGH AN ECOLOGIST'S EYE**

Work sheet no.2: **PLANTS (1)**

A. Inform yourself / Useful information

Plants include two big groups: *non-vascular plants* and *vascular plants*.

- Non-vascular plants are inferior plants without any conducting tissues and without any real vegetative organs. Moss takes part in the non-vascular plants category.
- Vascular plants are named Tracheophyta (or Cormophytae) because: their body are named 'cone', they have true vegetative organs and differential conducting veins (called tracheids, or tracheary elements).

Xylem tissue transports water and dissolved minerals to the leaves from the soil, and phloem tissue conducts food from the leaves to all parts of the plant.

The vegetative organs are: the root, the stem and the leaf.

The root absorbs the water and the mineral salts from the soil. The stem leads the minerals and the water to the root. The leaf meets the next roles: fotosynthesis, perspiration and respiration.

The tracheophytes are classified into 3 categories:

- a) Pteridophytes – inferior vascular plants with "woody" veins imperfectly named tracheids; reproduces via spores; they don't have flowers or seeds; includes ferns.
- b) Gymnosperms – superior vascular plants with woody veins imperfectly named tracheids; that don't have fruits; the seed is naked; the flowers don't have a flower cover (petals and sepals); includes fir, pine, spruce, larch.
- c) Angiosperms – superior vascular plants with woody veins perfectly named tracheas; with the seeds hidden in the fruit; the flowers have a floral cover; includes arbors.

Coniferous trees (evergreen) like: fir, spruce, pine have leaves that fall one after another every 2, 3 years.

Deciduous trees like: beech, elm, oak, tilia, fruit trees have leaves that fall every year.

B. Complete the chart below with examples

Nr.	Tracheophytes			Arbors	
	Pteridophytes	Gymnosperms	Angiosperms	With leaves that fall every year	With leaves that fall every 2, 3 years
1.	Ferns	Pines	Roses	Hickory	Pine
2.	Horsetails	Palm trees	Tulips	Beech	Spruce
3.	Salvinia	Gingko trees	Tomatoes	Willow	Fir trees

C. Collect different species of plants, naming and grouping each and every one of them.