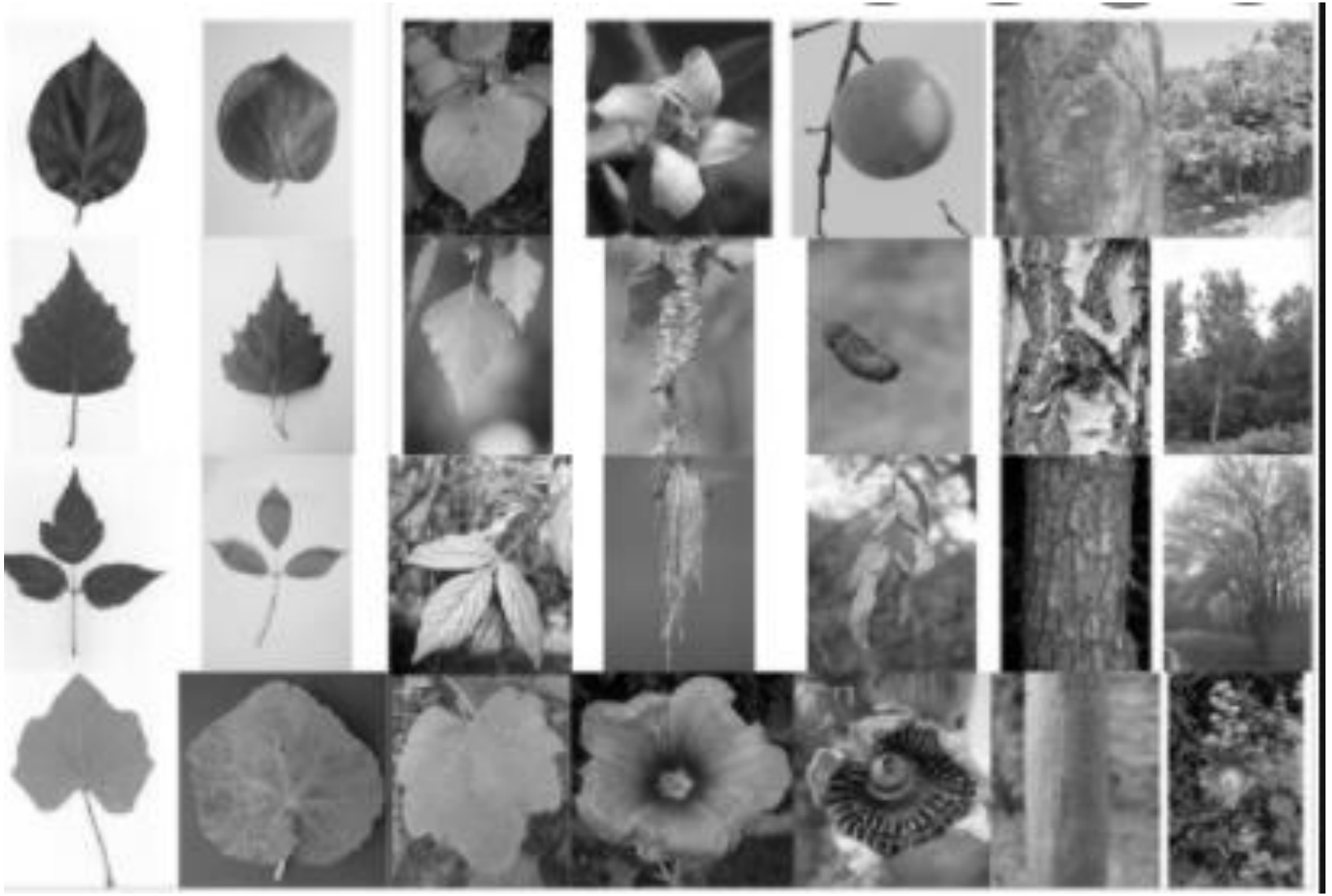
How Identify the plants

In general, to identify the plants we can use

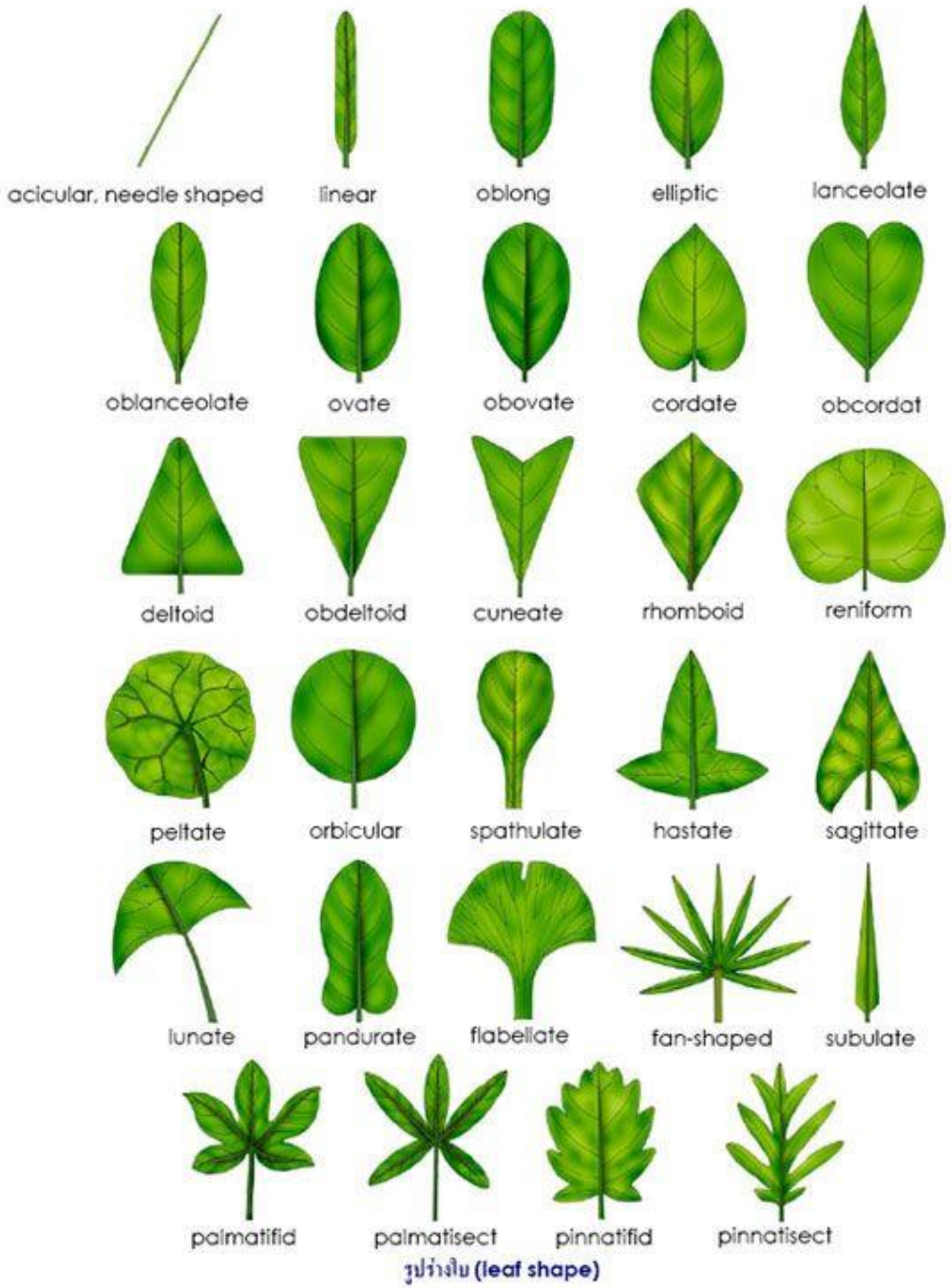
- Reproductive Parts
- Size
- Shape
- Bark
- Fruit
- Leaves



Because all of our plants don’t have the flower we focus on leaves to identify the plant name.

Here, I listed different steps to identify the plant names.

Step 1. Pay attention to the leaf shape



Step 2. Pay attention to shape of leaves (Broad and Narrow Leaves)

Broad Leaves

(deciduous tree)

(tree with leaves)

- wide blade
- visible veins

Narrow Leaves

(coniferous tree)

(tree with needles/scales)

- slender
- single or bundles

Step 3. Pay attention to variation in leaf size and color

- Leaves can vary in size, color, and even shape.
- Leaves exposed to more sun may look different from those in heavy shade.
- Examine many leaf specimens when attempting to determine the identity of a plant by its leaves.

Step 4. Pay attention to leaf arrangement

- **Pattern by which leaves are attached to a stem or twig.**

ALTERNATE

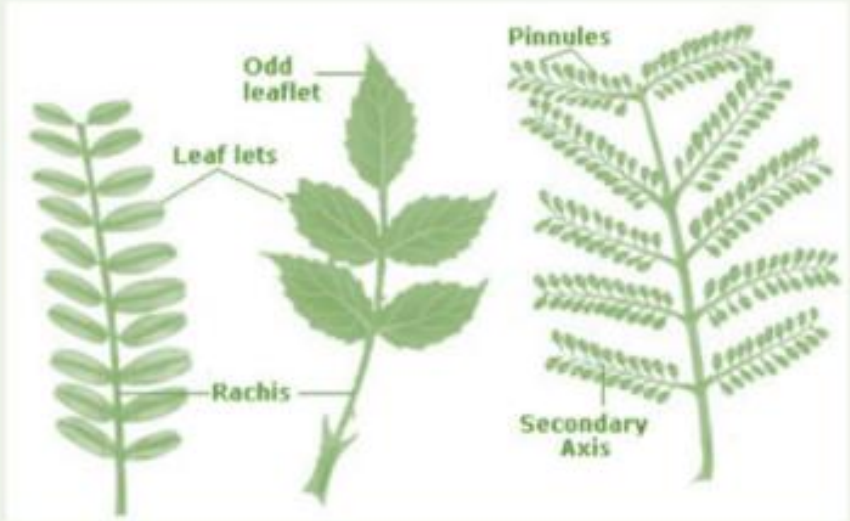
OPPOSITE

WHORLED

Step 5. Pay attention to Leaf Division

- **Leaves may have a single undivided blade or a blade that is divided into parts.**

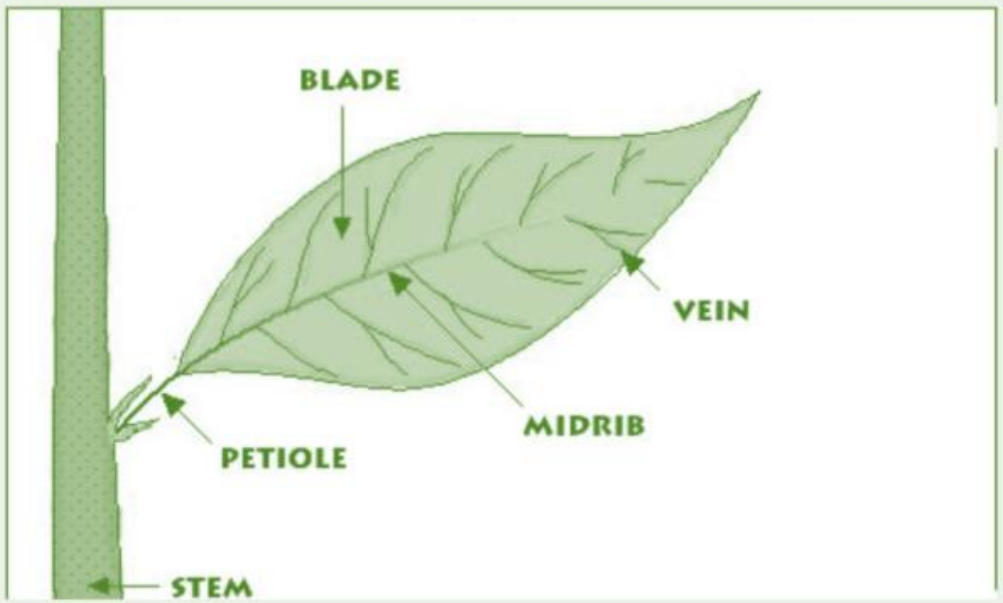
SIMPLE LEAF



COMPOUND LEAF

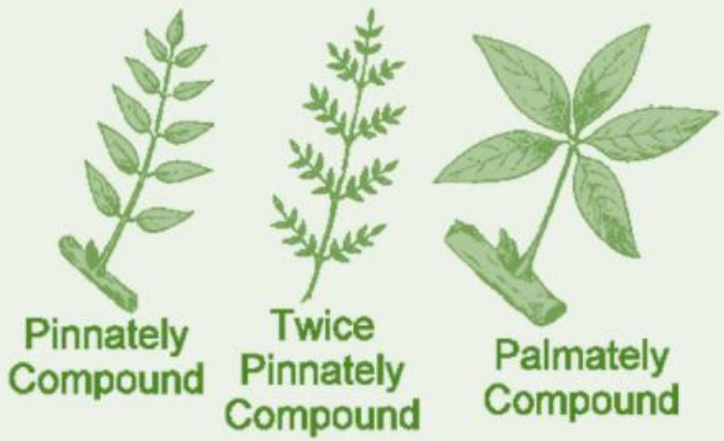
SIMPLE LEAVES

- **A leaf with one blade and one petiole.**



COMPOUND LEAVES

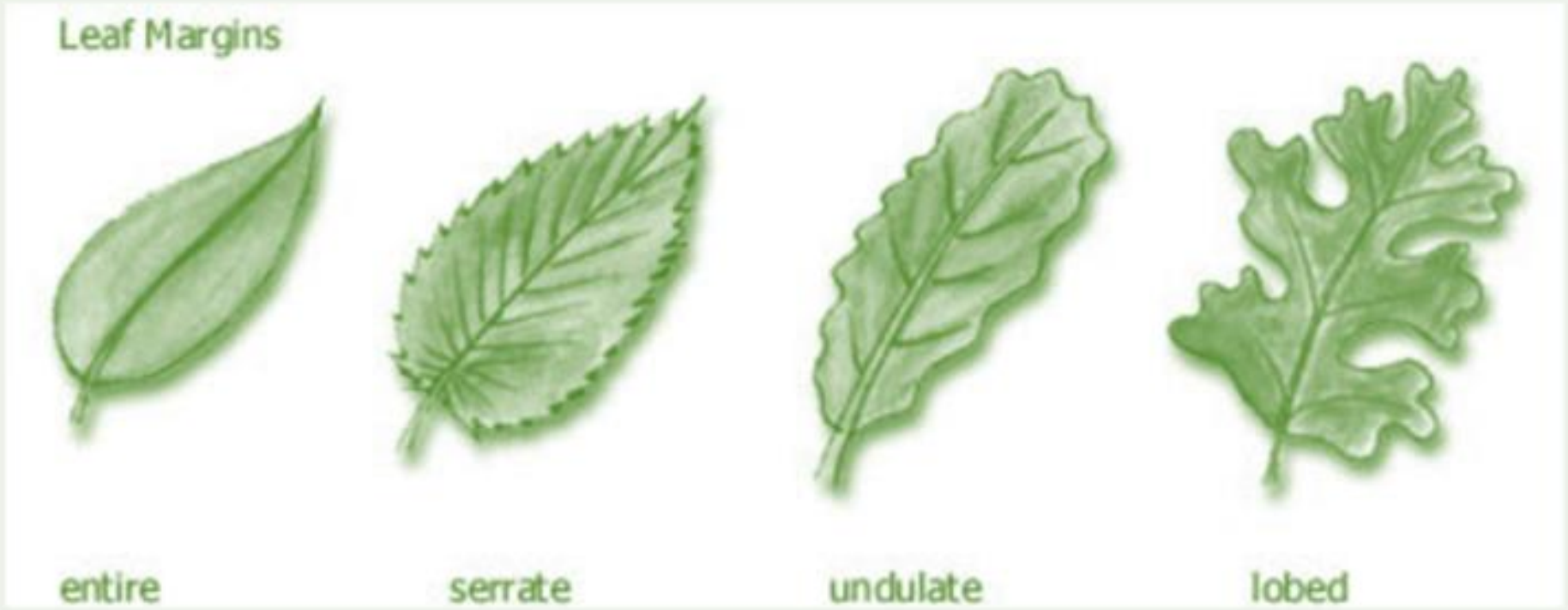
- **A leaf made up of many little leaves together called leaflets.**



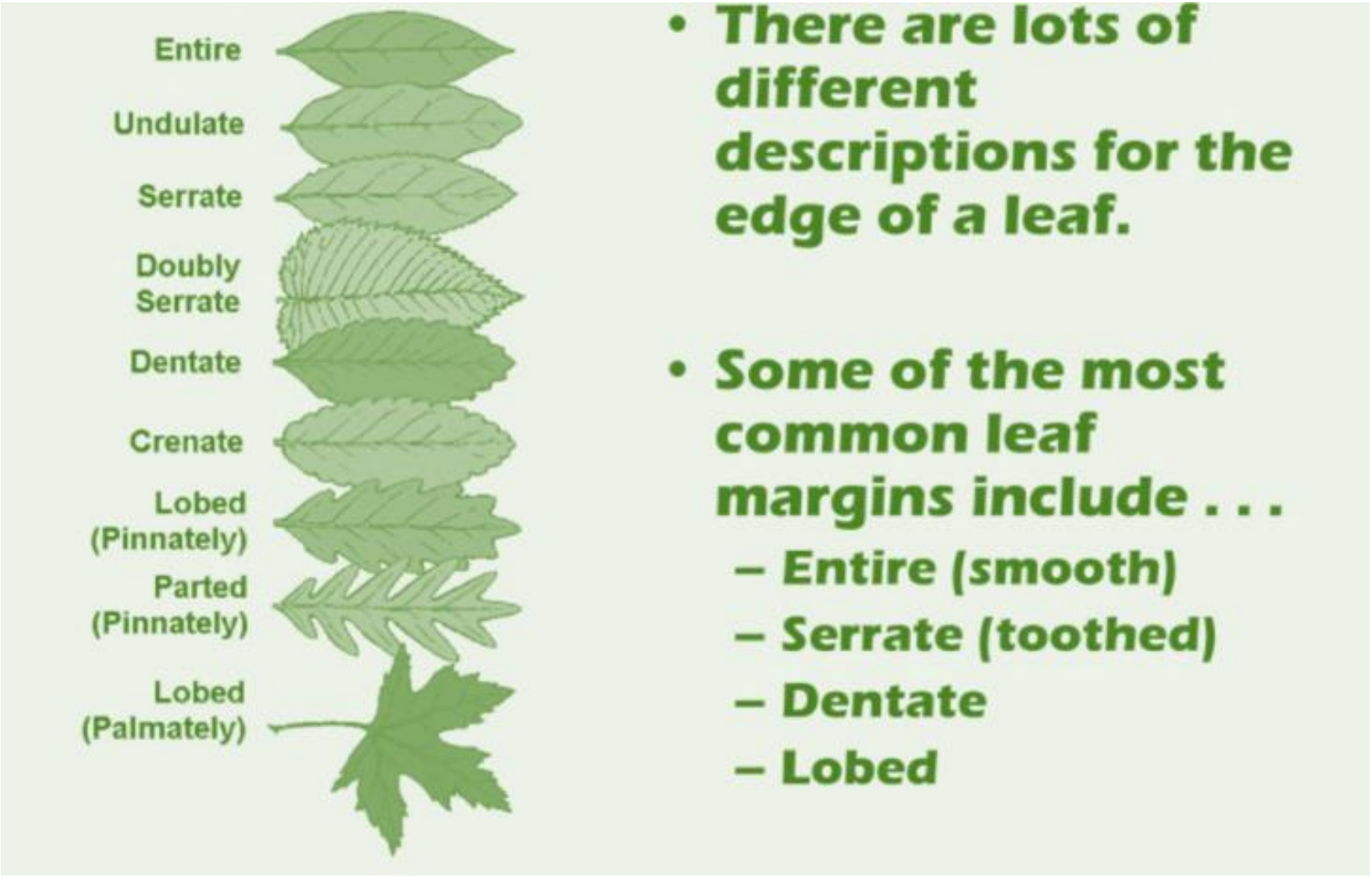
(one petiole/central stalk with many separate blades)

Step 6. Pay attention to the Leaf Margin

- **The outer boundary or edge of the leaf.**



Example of Leaf margins



Step 7. Pay attention to the Leaf Venation

(Different plant species have different vein shapes)

- **The vein pattern in a leaf.**

Leaf venation

Example of different veins

- **Parallel Veins**
  - do not touch
  - tropical plants, ferns

- **Pinnate Veins**
  - feather-like
  - Birch, Cherry
  - mostly elliptical shaped leaves without lobes

- **Palmate Veins**
  - fan-like
  - Maple, Poplar
  - mostly leaves with lobes and sinuses

Step 8. If our plants have needle leaves, these are different kind of them

NEEDLE LEAVES

- **Single**
  - Spruces, Firs, Hemlocks
- **Bundles**
  - 2, 3 or 5
  - Pine
- **Clusters**
  - more than 5, can be 30 or more
  - Larches