Plant Biology for Gardeners

Knowledge Check **KEY**

In the MGV Learning Library - Core Preparation Sessions

this is Section 1.1 in Module 1: The Fundamentals

1. Use print publications or other reliable resources to research the botanical names (formal scientific name) of the following plants:

1. Redbud (Eastern Redbud) ***Cercis canadensis***
2. Arrowwood ***Viburnum dentatum***
3. White oak ***Quercus alba***

Cornell Woody Plant database:[*http://woodyplants.cals.cornell.edu/home*](http://woodyplants.cals.cornell.edu/home)

2. Can you identify the error(s) in each of the following botanical names? What is a common name or names for each plant?

1. Cornus florida *Cornus florida* (italic needed); Flowering Dogwood
2. *Prunus subhirtella* “Pendula” *Prunus subhirtella* ‘Pendula’ *(use ‘ not “)* or *Prunus subhirtella* var. *pendula;* Higan Cherry or Rosebud Cherry
3. *Acer Rubrum* ‘October Glory’ *Acer rubrum* ‘October Glory’ (lower case R); Red Maple
4. *Acer palmatum* ‘waterfall’ *Acer palmatum* ‘Waterfall’ (upper case W) or

*Acer* *palmatum* var. *dissectum* 'Waterfall'; Japanese Maple

[*Latin 101*](http://blogs.cornell.edu/gblblog/files/2016/08/Latin-101-by-Dora-Galitzki-in-Garden-Design-magazine-Oct-2000-p88-to-89-2clthf6.pdf) by Dora Galitzki

3. Identify the bud and leaf arrangement for each twig. Is it opposite, alternate or whorled?

alternate Line drawing of two twigs with leaves in different arrangements.

Description: http://www.butler.edu/herbarium/treeid/altopp.jpg opposite

*(Botany Language Basics* Factsheet)

4. What word is used to describe the overall form of these trees? columnar



Crown form

https://www.na.fs.fed.us/spfo/pubs/uf/sotuf/chapter\_3/appendix\_a/appendixa.htm

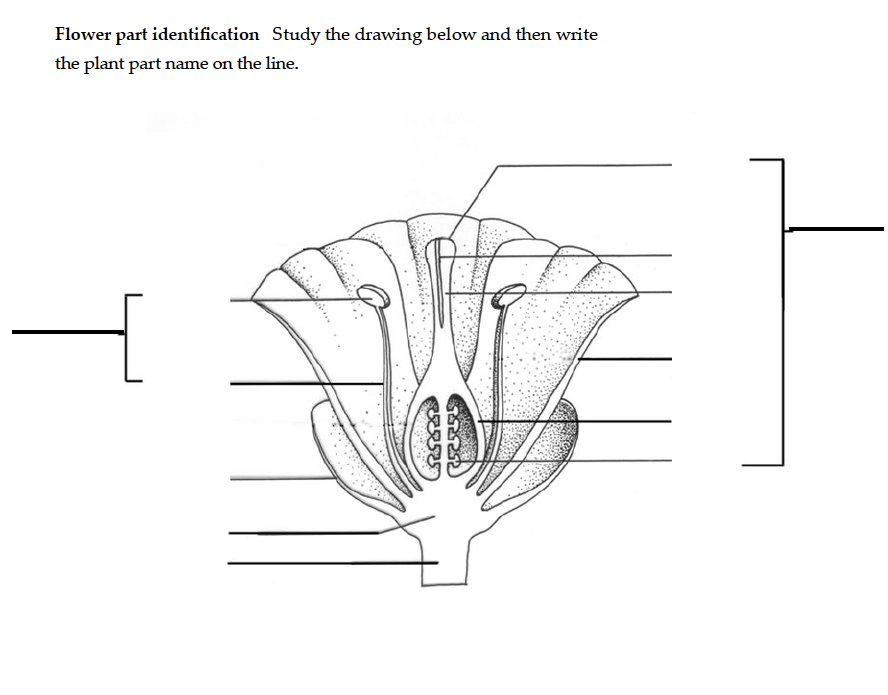
*(Botany Language Basics* Factsheet)

5. How do we describe each of the three leaves?

Line drawing of three different leaf types. 
Description: http://www.butler.edu/herbarium/treeid/cmpndleaves.jpg

From left to right: pinnate compound; palmate compound; pinnate compound (or twice pinnate compound) (*Botany Language Basics* Factsheet)

6. Study the drawing below and write the plant part name on each line.

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Stigma

Pistil

(note pistil only includes stigma, style, ovule, and ovary)

Pollen

Tubee

Anther

Filament

Stamen

Stylee

Petale

Ovarye

Sepal

Ovulee

Receptaclee

Pedicel

7. Is the diagram above a perfect or imperfect flower? What characteristic distinguishes the two?

Perfect because it has "male" stamens and the "female" pistil. An imperfect has either male parts or female parts, not both. (*Botany Language Basics* Factsheet)

8. Is the diagram above a complete or incomplete flower? What characteristic distinguishes the two?

It is complete because it has the 4 main flower parts (sepal, petal, stamen and pistil). An incomplete flower lacks one or more of these 4 main parts. *(Botany Language Basics* Factsheet)

References: [*Latin 101*](http://blogs.cornell.edu/gblblog/files/2016/08/Latin-101-by-Dora-Galitzki-in-Garden-Design-magazine-Oct-2000-p88-to-89-2clthf6.pdf) by Dora Galitzki, *Botany Language Basics* <https://blogs.cornell.edu/gblblog/files/2015/12/fact-sheet-botany-language-156ysah.pdf>, Cornell Woody Plant database,[*http://woodyplants.cals.cornell.edu/home*](http://woodyplants.cals.cornell.edu/home)

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