

Excerpt from Activity 1.2

Language Arts and Grocery Store Botany Handout (KEY)

Dissecting words into their roots is a useful way to help understand their meaning. Science often uses specific terminology. However if you know the roots of a word you can often get a better approximation of the meaning of a word.

At the end of the handout, the words or roots of words of Latin origin are followed by (L.) and of Greek origin by (Gr.). Scientific names, the names of species, are binomials (L. binomius = bi- = prefix > bis = two; Gr. nomos = law). The first part, the generic name or genus is a proper noun, thus capitalized. The second part is an adjective. These names are either *italicized* or underlined. For example, humans belong to the species *Homo sapiens* or Homo sapiens (Homo = L. noun for man or mankind = humankind; sapiens = L. adjective for wise, full of knowledge, thinking). The scientific names below are grocery store plants.

Part I. Determine the correct scientific names of grocery store plants based on using the root words list below.

1. This plant grows in the tropics and has a very large seed. You would not want to stand under this tree because the fruit might hurt you when it falls from the tree. The milk is a refreshing beverage and the white fleshy part of the seed can be eaten.

COCONUT

- _____ *Cucumis sativus*
- _____ *Cocos nucifera***
- _____ *Cucurbita pepo*
- _____ *Carica papaya*

2. The outside of this little fuzzy fruit is not very pretty. However, when you cut it in half, the green fleshy part with little black seeds is not only more colorful but also tasty to eat.

KIWI

- _____ *Actinidia chinensis***
- _____ *Atriplex hortensis*
- _____ *Spinacia oleracea*
- _____ *Manihot esculenta*

3. This grain has a long history in the Americas and is often celebrated as a plant introduced to the colonies from the American Indians as part of Thanksgiving. It has silk tassels and tasty kernels.

CORN

- _____ *Lactuca sativa*
- _____ *Cynara cardunculus*
- _____ *Cocos nucifera*
- _____ *Zea mays***

4. This plant apparently has a large flower, yet “the flower” is really composed of many little flowers. It is yellow and full of warm, bright colors.

SUNFLOWER

- _____ *Beta vulgaris*
- _____ *Allium sativum*
- _____ *Helianthus annuus***
- _____ *Apium graveolens*

5. This vegetable is often served raw next to carrots. You have to be careful because parts of this plant sometimes get caught in your teeth like dental floss.

CELERY

- _____ *Cocos nucifera*
- _____ *Ananas comosus*
- _____ *Apium graveolens***
- _____ *Cucurbita pepo*

6. This round root is packed with nutrients. It serves as a source of sugar in addition to corn and sugar cane. When the root is cut it looks like blood.

SUGAR BEET

- _____ *Beta vulgaris***
- _____ *Zea mays*
- _____ *Actinidia chinensis*
- _____ *Petroselinum crispum*

7. This is Popeye’s secret for strength!

SPINACH

- _____ *Solanum lycopersicum*
- _____ *Cocos nucifera*
- _____ *Lactuca sativa*
- _____ *Spinacia oleracea***

**=CORRECT ANSWER

Part II. After you have selected a scientific name for each grocery store plant description above, choose from the list and write the common name of the plant next to each question.

List: celery, coconut, corn, kiwi, spinach, sugar beet, sunflower

Roots:

aktinos (Gr.) = of a ray, beam
aktis (Gr.) = ray, beam
allium (L.) = garlic
ananas (Tupi Indian) = pineapple
annuus (L.) = annual
anthos (Gr.) = flower
apium (L.) = parsley
atriplex (L.) = saltbush
beta (L.) = beet
carduculus (L.) = carduus = thistle; unculus = suffix meaning small, diminutive
carica (L.) = kind of dry fig
chin = China
cocos (new Latin) = coconut tree
comosus (L.) coma = hair; comosus = hairy
cucumis (L.) = cucumber
cucurbita (L.) = gourd
crisp (L.) crispare = to make crisp; crispus = curled, uneven, wrinkled
cynara (Gr.) kinara = artichoke
-ensis (L.) = adjectival suffix meaning belonging to
esculentum (L.) = good to eat
fero, ferre (L.) = to bear
graveolens (L.) = strong-scented
helios (Gr.) = the sun
hortensis (L.) hortus = garden; hortensis = of a garden
lactuca (L.) lac = milk; lactuca = lettuce
lycopersicon (Gr.) lykos = wolf; (L.) persica = peach
manihot (Tupi Indian) mandihoca = manioc, cassava
mays (Taino Indian) = maiz = corn
nucis (L.) = of a nut
nux (L.) = nut or kernel
oleracea (L.) = resembling herbs, vegetables
pepo (L. = kind of melon)
sativus (L.) = that which is sown
solanum (L.) = nightshade, a potato relative
spinacia (L.) = spinach
vulgaris (L.) = common, usual
zea (L.) < Gr. zeia = kind of grain