**PLANT ORGAN NUTRITIONAL ANALYSIS LAB** NAME\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_HR\_\_\_ **/44**

The charts on your lab table show foods that were analyzed for nutritional content. Fill in the summative chart below.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Protein** | **Carbohydrates** | **Fats** | **Plant organ? (roots, stem, leaves, fruit, flower, seeds)** |
| 1. Asparagus
 |  |  |  |  |
| 1. Bean (green)
 |  |  |  |  |
| 1. Beets
 |  |  |  |  |
| 1. Broccoli
 |  |  |  |  |
| 1. Brussel sprouts
 |  |  |  |  |
| 1. Cabbage
 |  |  |  |  |
| 1. Carrots
 |  |  |  |  |
| 1. Cauliflower
 |  |  |  |  |
| 1. Celery
 |  |  |  |  |
| 1. Corn
 |  |  |  |  |
| 1. Cucumber
 |  |  |  |  |
| 1. Eggplant
 |  |  |  |  |
| 1. Lentils (beans)
 |  |  |  |  |
| 1. lettuce
 |  |  |  |  |
| 1. Lima beans
 |  |  |  |  |
| 1. Okra
 |  |  |  |  |
| 1. Onions
 |  |  |  |  |
| 1. Peas
 |  |  |  |  |
| 1. Peppers
 |  |  |  |  |
| 1. Potatoes baked
 |  |  |  |  |
| 1. Potatoes French fried
 |  |  |  |  |
| 1. Radishes
 |  |  |  |  |
| 1. Spinach
 |  |  |  |  |
| 1. Squash
 |  |  |  |  |
| 1. Sweet potato
 |  |  |  |  |
| 1. Tomatoes
 |  |  |  |  |

1. What are the three components of food? (3PTS)
2. Some people say that “plants make sugar.” Why is this statement incomplete?
3. “Total carbohydrate” is a term that includes starch (long chain of sugars) and simple sugar (just one hexagon). Starch is bland tasting, while sugar is sweet. How much starch is stored in corn?
4. What other vegetables are high in starch? (3PTS)
5. What is the biggest difference between a baked potato and French fries?
6. Kcal is a unit that measures energy found in food. What are the 3 lowest energy foods in this list? (3PTS)
7. If food energy is found in the bonds of molecules, what could you say about high calorie foods?
8. Why would people choose foods that are low in energy (kcal)?
9. Find the 3 vegetables that are highest in protein. What do they all have In common? (3PTS)
10. Why would plants put so much protein in these plant organs?
11. 100 g of broccoli is about 1 bowl full and has only 35 kcal. It is also loaded with vitamins. A 100 g chocolate bar has 520 kcals, a whopping 30 g of fat, over 40g of sugar, and little to no vitamins. Isn’t it a shame it tastes so good?

stems: asparagus,

celery

flowers: cauliflower,

broccoli

root: radish, beet,

carrot, potato,

parsnip

seeds: peas or beans

in pod, corn on the

cob

fruit: eggplant,

squash, tomatoes,

cucumber

leaves: lettuce,

cabbage, spinach,

mustard greens, beet

1. greens