

Name: _____

Date: _____

Proteins & Miraculin

Give an example of a protein? _____

What different types of proteins are there? List at least 3 _____

Experiment:

You are a scientist who has discovered a new protein in the West African fruit known as the Miracle Berry. This protein, called miraculin, has the unique ability to change the way we taste foods.

Hypothesis: _____

Materials Needed:

- 2 spoons
- 2 slices of lemon or 1 teaspoon lemon juice
- 2 slices of grapefruit
- 3 drops of Tabasco
- 2-3 salt & vinegar chips
- 1 packet of ketchup
- 1 packet of yellow mustard
- 1 teaspoon of apple cider vinegar
- 1 mberry Miracle Fruit Tablet
- 1 paper plate

Procedure:

1. Begin by tasting each food once to remember their original flavors
2. Place an mberry tablet on your tongue and use it similar to a mint. Be sure to move the tablet all around your tongue for a few minutes until dissolved or soft to chew
3. Begin re-tasting each food and recording changes in flavor below



Food	Change in Taste, What Does it Taste like after mberry?
Lemon	
Grapefruit	
Tabasco	
Salt & Vinegar Chips	
Ketchup	
Mustard	
ACV	

Conclusion: What are some observations you can conclude about the Miracle Berry based off of your experiment?



How do you think Miraculin works to make sour or bitter foods taste sweet?_____

What could this mean for people who have difficulty tasting certain foods, or for the food industry as a whole? Use your creativity to come up with innovative solutions.

I V X Z A L K K W J I C O A C
F W W U N N A B L Q G I A O S
V K F G T S Q N H O Y Y N E X
N V K D I C B K O E T T G K U
K W W O B W L Q N M R A G W T
N A I F O P J O W A R P E L B
S I Q G D W H O C O X O D A M
E E K T I W B T T O E D H R I
L W B S E R I S R M V B S U R
C S T M S L K E I F O O D T A
S Y R R E B M R O N J N C C C
U T L P T R A N S P O R T U U
M I D J I C G C S P K R I R L
B O K T L L K I C H E M I T I
L P M E Q Z S E M Y Z N E S N

Antibodies
Contractile
Enzymes
Food
Honey
Hormonal
mberry
Miracle
Miraculin
Muscles
Skin
Storage
Structural
Transport

