Eating and Exercise Activity

Name: ______

Learning Goals:

- Will be able to explain which variables affect BMI and which do not (weight, height, body fat, age, gender)
- Will be able to explain what BMI tells about a person including its limitations.
- Will be able to describe what a person can do to increase their heart's strength and what affects strain on the heart.
- Will be able to create a diet that allows a person to adjust their weight by 10 lbs.
- 1. Adjust the variables under the figure one at a time to determine if they affect BMI. Identify whether they are directly related (one goes up, the other goes up) or inversely related (one goes up the other goes down).

Variable	Affect BMI?	Dependence
Age		
Height		
Weight		
Body Fat		
Gender		

- 2. What does it mean if BMI (Body Mass Index) is high or low (look on Wikipedia as a resource)?
- 3. If you are "starving" what is your BMI?
- 4. Figure out how to make the figure in the sim starve. What happens to the BMI when you do this?
- 5. What defines "Starving" in the sim? Is it different for men and women?

- 6. What would be an example of a person who has a BMI in the "Obese" range but who is actually quite trim?
- 7. Investigate the heart strength and heart strain indicators.
 - a. How can you get both high?
 - b. How about both low?
 - c. How about Strength high and strain low?
 - d. Strength low and strain high?
- 8. Why does the sim have lifestyle choices (sedentary, active etc...) but also allows you to put in a certain amount of exercise?

9. Decide as a group on a person whom you will experiment on (realistic person). Determine how many calories you need to feed this person for them to maintain their weight.

Gender:	height:
Weight:	percent body fat:
Lifestyle:	Exercise:
Calories:	

10. Adjust the person's exercise so they maintain the body fat you gave them to start. What did you have to do to make their body fat stay stable?

- 11. If a person eats the same amount of calories and exercises the same but changes what they eat do they gain or lose weight?
 - a. What happens if you adjust their diet to have the same calories but they eat more protein and less carbs?
 - b. What happens if you adjust their diet to have the same calories but nearly all sugar and fat?

12. Name two things you learned from the sim that you did not already know.