Name: _____ Block: _____ Date: _____

Food Innovations Webquest

Link #1: World Population Growth:

1. What percentage of Earth's land can grow crops?

2. How would you describe the speed of population growth from 0 CE to 1500 CE?

3. How would you describe the speed of population growth from 1950 CE to 2050 CE?

4. Modern medicine was invented around 1900 – how did this change the speed at which the population grew?

Link #2: Water Footprint Infographic

5. Barley, Wheat, Sorghum and Millet are all types of grains called cereals. Look up a picture of each of these types of grains. Based on the images you saw, what do they have in common?

6. How many liters of water are needed to produce one pound of wheat?

7. How many liters of water are needed to produce one pound of cane sugar?

8. How many liters of water are needed to produce one pound of beef?

9. How many liters of water are needed to produce one pound of milk?

10. How many liters of water are needed to produce one pound of cheese?

Link #3: Article: Rooftop Gardens

11. How many pounds of produce have been grown on the roof of the McCormick Place convention center since 2013?

12. Where did mayor Richard Daley build a rooftop garden in 2000?

13. How may square feet of rooftop gardens are in Chicago?

14. How many rooftops are being used?

15. What are two other cities that have at least 1 million square feet of rooftop gardens?

16. Gotham Greens is planning to build the world's largest rooftop garden in Chicago. How many acres will it be?

17. Some new rooftop gardens have greenhouses with sensors - what do those sensors keep track of?

Link #4: Portland Rooftop Gardens Video

Watch the video to answer the questions. More information about this rooftop garden can be found in the article below the video. Reading the article is optional.

18. What is the address of the first community rooftop garden in Portland?

19. Write three observations you have about the rooftop gardens at this location:

Link #5: Wall Garden Video

19. After watching the whole video, describe what a vertical garden (also called a wall garden) looks like:

20. How do vertical gardens save water?

Link #6: TED Ed - A teacher growing green in the South Bronx

21. Watch the first 6 minutes of this video. Write down three things the students did:

22. If you could talk with these students or their teacher, what are two questions you would ask them about vertical gardening?

1. _____

_____

2. _____

_____

23. Name three locations at Lincoln where you think it would be a good idea to build a vertical garden. Briefly explain why each location would be good:

Location 1: _____
Reasons:

Location 2: _____
Reasons:

Location 3: _____
Reasons:

Link #7: NOAA What is Aquaculture?

24. What is aquaculture?

Link #8: University of Maine What is Aquaculture?

25. True or False: Aquaculture can be done in fresh water and salt water.

26. True or False: Aquaculture can only be done outdoors.

27. How long as aquaculture been around?

28. What types of food are being grown using aquaculture for people to eat?

Link #9: Maine Seaweed Harvest

29. How many types of of seaweed are native to the Atlantic coast?

30. How many pounds of dried seaweed came from the 100,000 pounds harvested?

31. Why did Shep Earhart start seaweed farming?

32. Your Ideas: What are some meals that you eat that seaweed could be added to?

Link #10: Food of the Future

33. List the food of the future ideas presented:

34. Which type of food presented do you think is the best idea for helping feed a world of 9 billion people (even if you are not excited about it)? Why would it be good?

35. Invent your own future food, explain why it would help feed a world of 9 billion people: