**Unit 3 – Microbiology of Food Layered Curriculum Experiences**

**(Chapters 25, 26, 27 & 28)**

**Level 1 - Basic Learning and Skills Activities**

**Choose activities to earn a maximum of up to 20 points**

**A=18-20 Points; B=16-17 Points; C=14-15 Points; D=12-13 Points**

**Target Completion Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** (end of class)

\_\_\_\_\_ Guided note taking – video or lecture, PPT (**required**) (3 points)

\_\_\_\_\_ List 10 foods that are prepared using fermentation (3 points)

\_\_\_\_\_ Create flash cards/online flashcards for all of the vocabulary in this unit (3 points) (choose 5 words from each chapter for a total of 20)

\_\_\_\_\_ Take a teacher-developed Quia quiz( <http://www.quia.com/quiz/4720407.html>) for all of the vocabulary in this unit (3 points)(notify teacher to check Quia)

\_\_\_\_\_ Create an online review game for all of the vocabulary in this unit (5 points)

\_\_\_\_\_ Create a PPT explaining the positive effects of microbiology (5 points)

\_\_\_\_\_ Name and describe 3 microorganisms that cause food-borne illness and/or food spoilage. Then name and describe 3 microorganisms that are beneficial for the body (6 points)

\_\_\_\_\_ Identify and explain in your own words 5 food preservation techniques (6 points)

\_\_\_\_\_ Make a comic strip depicting 5 ways to preserve food and keep it safe at home and commercially (6 points)

**Level 2 - Application Activities** **Choose activities to earn up to 30 points**

**A=28-30 Points; B=24-27 Points; C=20-23 Points; D=18-19 Points**

**Target Completion Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** (end of class)

\_\_\_\_\_ Create a Venn diagram comparing modern methods of food preservation with those of 100 years ago (3 points)

\_\_\_\_\_ Explain the microbiology of milk spoilage. Create a flow chart showing the processes used to prevent and control spoilage in the production of dairy products. (5 points)

\_\_\_\_\_ Create a health awareness pamphlet explaining both positive and negative effects of bacteria. (6 points)

\_\_\_\_\_ Write and perform a song/rap explaining the benefits of probiotics, include at least 5 foods that contain probiotics (6 points)

\_\_\_\_\_Write and perform a puppet show explaining at least 5 food safety practices related to microbiology. (8 points)

\_\_\_\_\_ Identify the microorganisms that cause fermentation in 8 foods. Prepare one of those foods and write an explanation of how the fermentation process works. (8 points)

\_\_\_\_\_ Research 5 food-borne illnesses. Chart the sources, symptoms, prevention and treatment of each (10 points)

**Level 3 - Analyzing Activities Choose 1 activity to earn up to 50 points**

**A=48-50 Points; B=44-47 Points; C=40-43 Points; D=36-39 Points**

**Target Completion Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** (beginning of class)

\_\_\_\_\_ Create an interactive power point or video on preventing food borne illness, be sure to define it and then explain how to prevent it. Be sure you are in the pictures/video.

\_\_\_\_\_ Conduct and videotape an experiment explaining how to grow a bacterial culture and demonstrate at least 2 ways to test the effectiveness of different antibacterial products. Include a lab report to explain your data and conclusions.

\_\_\_\_\_ Create an interactive power point or video explaining the steps in cold pack verses hot pack canning. Be sure you are in the pictures/video.