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| **Sample lesson plans****Teacher Name:** Miss Cooley | **CTS Module** | **FOD 1010 – Food basics**Introductory level |
| **Core subject**  | **Science**Unit C Disease Defense and Human Health  |
| **Duration** | 85 min classes17 classes and 8 kitchen labsSeptember - October |

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| **Lesson plan – Nutrition** **Duration – 3 classes****1.3 Days in class room and 1.5 days in the Kitchen lab**  |
| **Outcomes:** |
| **General Outcomes: foods****1. describe and demonstrate factors relating to safety and sanitation.**1.1 identify the need for personal hygiene1.2 demonstrate appropriate hand-washing techniques1.3 demonstrate proper sanitization of equipment and workspace1.4 demonstrate ability to leave food preparation area in an appropriate fashion 1.5 practice appropriate workspace safety focusing on: 1.5.1 prevention of accidents; e.g., back safety, slip and trip hazards, burns, cuts 1.5.2 injury treatment1.5.3 blood-borne pathogens; e.g., minor cuts, blood spills 1.6 select and safely use available tools and equipment when: 1.6.1 measuring 1.6.2 preparing 1.6.3 mixing 1.6.4 cooking 1.6.5 serving **General Outcomes: science****Unit c****2. Analyze the relationship between human health and environmental pathogens**- distinguish between communicable and non-communicable diseases- investigate and describe the conditions necessary for the growth of a specific pathogen (e.g., viruses, fungi, bacteria)- describe how different communicable diseases are transmitted and how they affect human health (e.g., cold, influenza) Unit C: Disease Defense and Human Health Science 24 /43 ©Alberta Education, Alberta, Canada- describe how no communicable diseases are transmitted and how they affect human health (e.g., food poisoning due to salmonella or E. coli; cholera; dysentery)- investigate and describe how a specific food handling or preparation process is designed to prevent microbial contamination of the final product (e.g., freezing, pickling, salting, vacuum packaging)**Performing and recording**- C.PR.1,2,6 (unit c performing and recording specific outcome 1,2 and 6) |
| **Materials and technology**  |
| * Pre-lab worksheet
* Measuring cups
* Ingredients for pizza dough
* Oven
* Projector
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| **Sequence** |
| **Prior knowledge** Students would have previous knowledge on pathogens and microorganisms. They previously did a lab where they swabbed the red (beef) cutting boards in the kitchen counter tops and… They’re results concluded that the cutting boards had the highest number of unsanitary microorganisms that could spread E. coli. In the following classes, students will be learning about how these pathogens can be spread and the dangers related to them. We will also be covering other health and safety practices in regards to food and handwashing. Lastly, students will do an experiment by changing variables in pizza dough to analyze the chemical changes in the recipe. **1st class – Pre-lab and recipe review** * Students will make their PRELAB.
* Students will receive the Pizza dough recipe.
* Students will need to choose one ingredient to adjust in the recipe given.

**2nd class – Health/food safety and recipe measuring*** Students will use half a class to measure ingredients so that it is prepped for the next class in the kitchen.
* Students will be divided into 5 groups of 6 students.
* Students will distinguish between communicable and non-communicable diseases.
* Students will investigate and describe the conditions necessary for the growth of a specific pathogen (e.g., viruses, fungi, bacteria) They can relate this back to the swab test they did in the kitchen
* Students will describe how different communicable diseases are transmitted and how they affect human health and how no communicable diseases are transmitted and how they affect human health (e.g., food poisoning due to salmonella or E. coli; cholera; dysentery)
* Students will investigate and describe how a specific food handling or preparation process is designed to prevent microbial contamination of the final product (e.g., freezing, pickling, salting, vacuum packaging)

**Third class – Experiment in the kitchen*** Students will be in the kitchen.
* We will go over handwashing and safety and sanitation rules.
* Students will be assigned a kitchen with the ingredients they measured previously.
* Students will record data from the variable they changed in the recipe.
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| **Assessment** |
| Students will be evaluated formatively on their pre-lab and participation during class.Students will be assessed summatively – handing in their results of the lab.  |
| **Reflection** |
| **Was the experiment successful?****Where the students engaged?****Was it realistic to have that many students in the kitchen lab?****Did the students understand food safety and sanitation process?** |