**Angeles  City Science High School**

**Conchem 9**

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ACTIVITY No. 1: Eating Advantage or Disadvantage Objectives

1. Identifying the effects of food preservation and additives
2. Judge who is more affected – consumer or producer

Direction:

Column 1: Read carefully the following effects of food preservations and food additives.

Column 2: Identify if the effect is an ADVANTAGE or DISADVATAGE**.** Use positive one (+1) if it shows an ADVANTAGE and negative (-1) if it shows a DISADVANTAGE

Column 3 &4:Evaluate who is MORE AFFECTED – consumer(who buys the product) or producer(who sells the product). Write the SCORE on the space provided.

|  |  |  |
| --- | --- | --- |
| **Effects of Food Preservation and additives** | **Consumer** | **Producer** |
| **Part A** | | |
| 1. Increases product shelf life +1 | | |
| 2. Increase nutrients value: Adding additives to processed food  helps maintain the nutrient value of the product. | +1 |  |
| 3. Enhance the flavor: | +1 |  |
| 4. Preserve texture and consistency of the product | +1 |  |
| 5. Mass production: Additives are added to the food products during production and suppliers don’t have to worry about spoilt products and food poisoning. This enables them to produce  food products in large quantities. |  | +1 |
| 6. Reduce foodborne diseases: Adding additives to the food prevent the growth of micro-bacteria and any virus caused by  decaying food. | +1 |  |
| 7. Prevent build-up of fat: Antioxidants added to foods with unsaturated fats prevents the build-up of fatty deposits around  the arteries. | +1 |  |
| 8. Reduce premature birth: Folic acid supplement prevents pre-  mature birth and malformation in early pregnancy stages. | +1 |  |

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| --- | --- | --- |
| 9. Reduce food spoilage: Adding additives help keep the food  fresh thus reducing food losses. | +1 |  |
| 10. Promote the development of food industries: Use of food additives to improve the nutrition value, increase the taste and appearance of the cooked food has contributed to the growth of  food industries. |  | +1 |
| **Part B** |  |  |
| 1. Health complications: Some food additives consist of harmful components to human life. BHA preservative causes nausea, diarrhea and even shortness of breath for some people. Too  much salt can result in a heart attack. | -1 |  |
| 2. Destroy vitamins in food: Although they are being used to enhance the color and increase the nutrient value of food, they destroy the vitamins since additives replace real ingredients and  make bad quality food look appetizing. | -1 |  |
| 3. A decrease in food prices: Food additives have contributed to decreased food prices since additives will be used to preserve excess food. This leads to greater food supply and more  suppliers. | -1 |  |
| 4. Increase obesity and diabetes: Corn-syrup additive used in  processed foods increase the chances of being obese and diabetic. | -1 |  |
| 5. Cancer: Some components included to the additives are  linked to cancer. According to research carried, the carcinogenic component can cause cancer in animals. | -1 |  |
| 6. Cause allergy: Some food additives may cause some  allergies to some people or gastric irritation. | -1 |  |
| 7. Trick the eyes: Food products and drinks can be added to a lot of additives to retain the appearance or make them look bright. These bright colors may make you think your take  healthy product. | -1 |  |
| 8. Replace real ingredients: Manufacturers may replace the real ingredient in a commodity and add additives to bring out the same flavor. Due to these unethical practices, consumers are  bound to suffer in long run. |  | -1 |
| 9. Leads to food poisoning: Huge quantities in processed food and in meat products to preserve them for long life may turn  poisonous. | -1 |  |
| 10. Expensive natural ingredients: There is a growing concern of individual shifting from synthetic and artificial food additives to natural ingredients which turn out to be very expensive to  consumers. |  | -1 |

Guide Questions

1. Who receives the highest score in part A? What is the score?

Consumer, having +7 in their score.

1. Who receives the lowest score in part B? What is the score?

Consumer, having -7 in their score.

1. What are the combination scores (part A + part B) of consumer and producer?

-1 for consumers and +1 for producers.

1. Is food preservation and additives good or bad for the consumer? Why?

It is bad, the results stated -1.

1. Is food preservation and additives good or bad for the producer? Why?

It is good, according to the results that we gathered earlier, producers scored +1. They have the machines for it, and they can do it in bulk.

ACTIVITY No. 2: Added TERMS

Objective: Define the terms used in the effects of food preservation and additives. Direction: Match column A to column B. Write the letter of the answer on the lines provided.

**COLUMN A**

Drying 1. Removing the moisture from food using natural sunlight or ultra violet (UV

Vitamin C 2. This nutrient is destroyed during exposure of product to heat

Dried fruits and vegetables 3. Food preserved products that are high in fiber and carbohydrates and low in fat

Salting 4. Method in which salt is added to products to draw out the moisture

Curing 5. Method used to preserve “*ebun buro”*

Freezing 6. Method used to preserve meat in bacon, longganisa and tocino

Fermentation 7. Used in strawberries to stay bright red

Heating 8. effective way of preserving it because the great majority of harmful pathogens

Brine 9. Salt solution use in curing

Chemical Additives 10. Used to prevent or retard chemical reactions that result in the oxidation of foods.

**COLUMN B**

* Vitamin C.
* Dried fruits and vegetables
* Drying
* fermentation
* heating
* Salting
* brine
* Chemical additives
* curing
* Freezing

Guide Questions

1. Which methods of preservation use chemical additive?

Salting, Curing, Chemical additives, and canning.

1. Which methods of preservation use heat during the process?

Heating, Drying, Canning and thermal process.

ACTIVITY No. 3: As long as it is PRESERVE

Objective: Recognized which methods of food preservation are described on the product

Direction: Complete the table below

|  |  |  |  |
| --- | --- | --- | --- |
| **Product** | | | **Method of food preservation** |
| 1. Tocino | | | Curing |
| 2. Kimchi | | | Fermentation |
| 3. Banana Chips | | | Drying |
| 4. Sardines | | | Canning |
| 5. Yakult | | | Fermentation |
| 6. Bagoong | | | Salting and Fermentation |
| 7. Patis | | | Curing |
| 8. Ice Crème | | | Chemical Additives and Freezing |
| 9. | | Fish sauce or patis | Salting and Fermentation |
|  | 10. Dried mangoes | | Drying |

Guide Questions

1. Why does sardines or any canned foods is always included on the survival kit?

Sardines have a long period of shelf life and it is affordable.

**COLUMN B**