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Background

- Single-use plastics are now being tracked, highlighted, and reconsidered
- Consumption of single-use plastics, such as bags and cutlery, has rapidly increased ¹
- Single-use plastics are confused by the endocrine system as estrogen ³
- Unhealthy eating patterns are associated with adult morbidity and mortality ⁴
- Eating patterns established in childhood often carry over into adulthood ⁴
- School-based education programs were shown to improve nutrition and food safety knowledge ⁴

Outdoor learning helps young people to:

- Understand the need for sustainable relationships between people and their environment ²
- Promote a positive and knowledgeable response towards personal health ²
- Take personal responsibility ²

Process

Field-Experience 1:

- Food Safety
 - Fact sheet & checklist ^a
 - Handed out prior to FE1
 - Thermometer activity ^b
- Single-Use Plastics
 - Human-made graph ^c
- Nutrition
 - Trivia

Field-Experience 2:

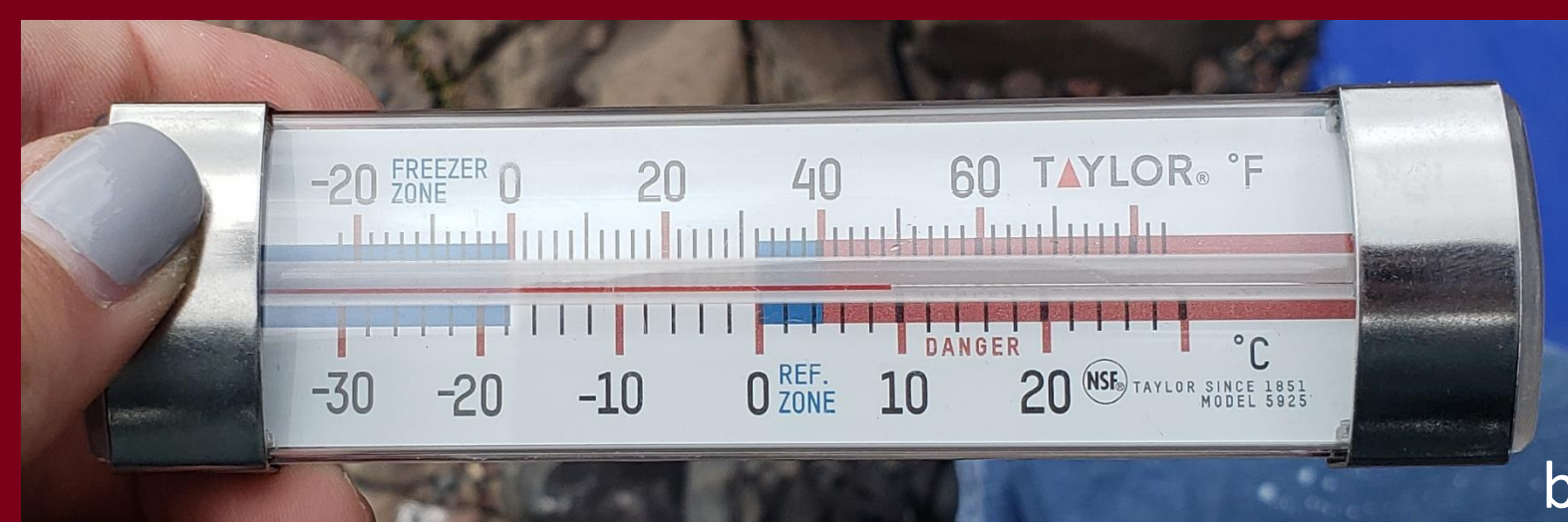
- Nutrition, Food Safety, Single-Use Plastics
 - Trivia ^d
- Single-Use Plastics
 - Tote comparison with reusables ^e
 - Post FE2 Evaluation ^f

*Group discussion accompanied all activities



My Role as Food Safety & Nutrition Coordinator

Implementing hands-on learning activities in nature to increase students' knowledge about single-use plastics, nutrition, and food safety.



Nutrition Trivia: FE2 Created by: Denika Kerska

Food Name: _____

Part 1: Short Answer

Answer each question to the best of your ability working within your pod. Each question is worth 2 points, unless noted otherwise. Partial credit will be accepted for questions 1 & 2 only.

1. What are the six classes of nutrients? (6 pts.)
2. The Acceptable Macronutrient Distribution Range (AMDR) is used to suggest the levels at which nutrients should be present in a healthy diet. Based on the AMDR, what percentage of total calories should come from proteins? Carbohydrates? Lipids? (3 pts.)
3. What is the major health effect of too much sugar?
4. Adults in the United States consume an average of how many milligrams per day of sodium?
5. What is the acceptable temperature range for foods to be considered safe and resistant to the rapid multiplication of foodborne illnesses?

Part 2: True or False

Circle the correct answer—True or False. Each question is worth 2 points.

True or False: Amino acid supplements are recommended for all athletes to improve performance.

True or False: The term essential describes a necessary nutrient that can be obtained from the diet and made by the body.

True or False: Bottled water is safer than tap water.

True or False: Single-use plastic particles are confused by the endocrine system as mercury.

True or False: Low fat, organic, and gluten-free do not imply healthiness.

Part 3: Multiple Choice

Write the correct letter answer next to each statement. Each question is worth 2 points.

____ This vitamin precursor causes the skin to turn bright yellow/orange if consumed in high quantities.

____ Enrichment refers to the addition of thiamin, riboflavin, niacin, and what other vitamin to breads and cereals?

____ A vegan is at special risk for what vitamin deficiency?

____ Plastic bags, straws, soda and water bottles, etc.

____ Tupperware, beer's wrap, metal utensils, etc.

A. Folate
B. Single-use plastics
C. Beta-carotene
D. Vitamin B12
E. Reusables

Now, add up your total score and write it here: ____ / 27 pts.

Thank you everyone for your involvement!

Do you feel as if you know more about single-use plastics now as compared to before FE1 and FE2?

No 1 2 3 4 5 Yes

In the future, how likely are you to use more reusable items in place of single-use plastics?

Not Likely 1 2 3 4 5 Very Likely

What specific changes will you make? _____



Food Safety Fact Sheet

EcoliteracySCHOOL
Created by: Denika Kerska
Food Safety & Nutrition Coordinator

A healthful diet provides the proper combination of energy and nutrients including carbohydrates, foods, proteins, vitamins, minerals, and water.

When choosing a meal, consider whether it is adequate, moderate, balanced, and varied.

Do's:

- Use at least two cold sources, such as ice or gel packs, in an insulated bag to keep perishable foods safe.
- Add some hand soap, so you can clean your hands before eating if there are no facilities nearby.
- When you return home and empty your bag or cooler, wipe the inside with hot soapy water and let it air dry.

Don'ts:

- Pack food in an old-fashioned brown paper bag if you intend on keeping it for longer than 2 hours.
- Allow your lunch to reach temperatures between 40°F and 140°F as foodborne illnesses with begin to multiply rapidly.
- Eat perishable foods, such as cold cut sandwiches and yogurt, after leaving out at room temperature for more than 2 hours.

Single-Use Plastics Tip:

If you do not have a reusable cold source, fill a water bottle or plastic container with water and freeze it.

NUTRITION FUN FACTS

1. Low fat, organic, and gluten-free don't imply healthiness.
2. Supplements cannot over-fulfill nutrient needs.
3. Energy calories are a major contributor to weight gain. Fat holds five times more calories than carbs.

CHECKLIST

- Insulated Bag
- Cold Source (ICE)
- Hand Wipes
- Fruits & Vegetables
- Wholesome Grains



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Limitations

- Lack of time – trivia during FE1
- Student interest and attention – food safety fact sheet and nutrition information
- No clear measure for increased knowledge

Discussion

- Found that student's learned more about food safety, nutrition, and single-use plastics through the activities and discussions implemented
- Average trivia score in FE2 = 80% - review questions
- Post FE2 evaluation showed people know more about single-use plastics now & will opt to use more reusable items in the future
- Outdoor learning did seem to impact students' understanding and desire for change
- Moving forward, we should observe the actions of participants after FE2 – are they making smarter decisions?

What can we do?

- Increase public awareness about the harmful outcomes of high consumption of disposable single-use plastics through mass media ¹
- Convince policymakers to enact laws for increasing the production of recyclable single-use items ¹
- Reduce personal consumption of single-use plastics
- Choose healthier food options, including more fruits, vegetables, and grains, and less saturated fats and sugars
- Be wary of eating cold foods if the temperature is above 40°F
- Use an insulated cooler and two ice sources for keeping foods cold and within the safe temperature range

References

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