

Balanced Bites: Evidence of Student Learning

Students who participated in the Balanced Bites lesson and Farm Fest field trip completed both a pre- and post-test within one month of the visit to evaluate their baseline knowledge of livestock and human nutrition, measure knowledge gained following the program, and assess any reported changes in behavior. The following charts present the percentages of correct and incorrect responses for the pre- and post-tests, followed by responses to behavioral questions and short-answer items. Green represents the percentage of correct or positive responses, while red represents the percentage of incorrect or negative responses.

Pre-test

Post-test

What do all living things need to grow and stay healthy?



■ Correct (Nutrients) ■ Incorrect

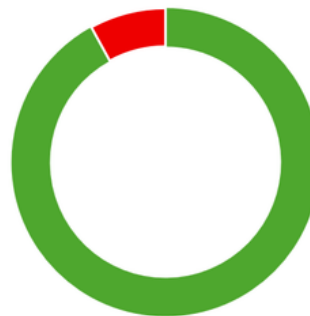


■ Correct (Nutrients) ■ Incorrect

What animal do we usually feed a TMR?

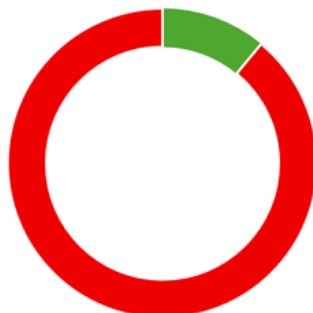


■ Correct (Cow) ■ Incorrect



■ Correct (Cow) ■ Incorrect

Which nutrient best gives your body *quick energy*?



■ Correct (Carbohydrates) ■ Incorrect



■ Correct (Carbohydrates) ■ Incorrect

Which nutrient best helps with *digestion*?



■ Correct (Fiber) ■ Incorrect



■ Correct (Fiber) ■ Incorrect

True or False: Humans and animals both need the same type of nutrients.



■ Correct (True) ■ Incorrect



■ Correct (True) ■ Incorrect

True or False: Bread for humans and grain for animals is an example of a protein.



■ Correct (False) ■ Incorrect



■ Correct (False) ■ Incorrect

True or False: The food animals eat can affect the products we get from them, like meat or milk.

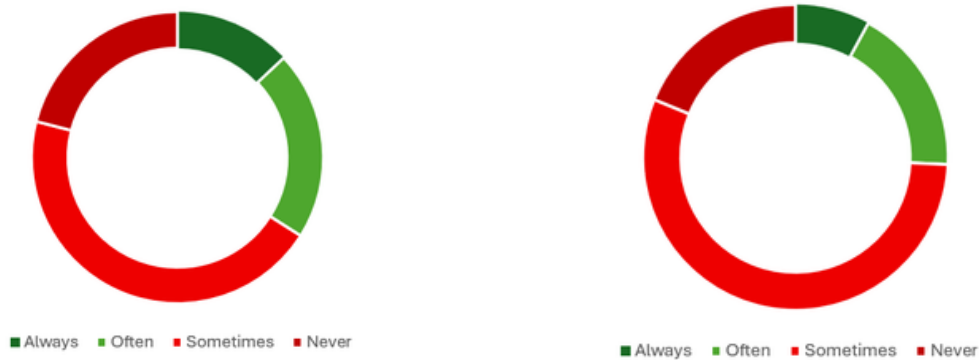


■ Correct (False) ■ Incorrect

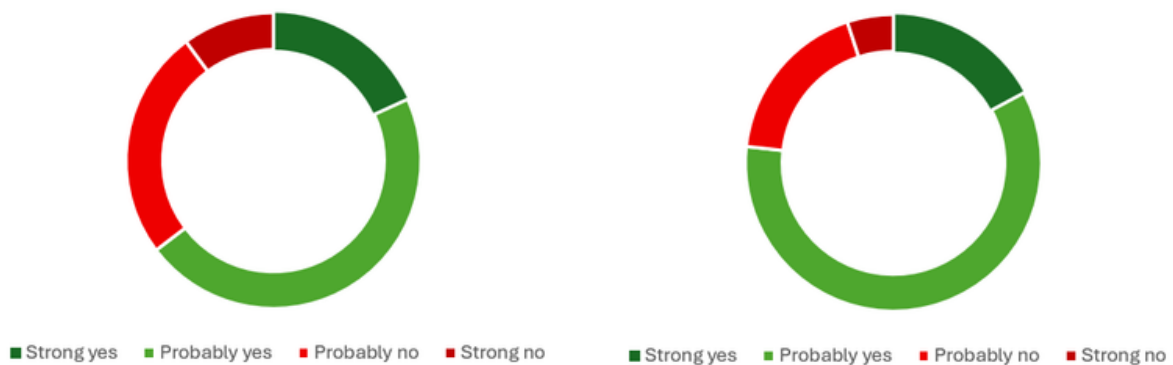


■ Correct (False) ■ Incorrect

How often do you think about what nutrients are in your food before you eat it?



Do you feel confident you could identify a meal that is nutritionally balanced?



Do you think you will choose balanced snacks more often after the "Balanced Bites" classroom lesson and Farm Fest? (post-test only)



Comparison of the pre- and post-test results indicates an overall increase in students' knowledge of human and livestock nutrition following participation in the program. While there was little change in the percentage of students who reported thinking about the nutrients in their food before eating, students reported increased confidence in their ability to identify a nutritionally balanced meal. Additionally, 72% of students reported they were more likely to choose balanced snacks after participating in the lessons. These findings suggest that the program not only improved students' nutrition knowledge but also increased their confidence in applying that knowledge and encouraged healthier food choices.

At the conclusion of the post-test, students responded to a short-answer question identifying which nutrients they believed they needed to consume more or less of. The sample responses below provide insight into students' perceptions of their own nutrient intake and reflect the types of nutrition-related thinking that emerged during the program.

“I think I need less fat because I eat McDonald's and other stuff that has a lot of junk food and has a lot of fat in it and is kinda unhealthy.”

“I think I need more protein and carbohydrates. I think I need them because they could really help me by getting stronger and building up my stamina.”

“I think I need more vitamins and minerals and less fats because although you need some fats to have a balanced meal, I feel that some people add too much fats and not enough vitamins and minerals.”

“I think I need more protein because I want to be stronger than my older sister and brother.”

“I think I will need less fat because most meals nowadays are usually made with a lot of fat, and more vitamins and minerals because those are good. Yes, fats are needed to make a balanced diet but if you have too much, it's not good for you.”