



Sweetpotatoes: Fuel for Athletes



<p>Grade Level(s): Grades 9-12</p>	<p>Lesson Description: Do you ever wonder how extreme endurance athletes fuel their performance? In this lesson, students will explore sports nutrition and fueling endurance athletes. In small groups, students will develop a product to fuel endurance athletes that uses sweetpotatoes as an ingredient. This lesson is a great way to review carbohydrates, sports nutrition, and product design.</p>	<p>Timeframe: Minutes: 330 Suggested days: 3-4</p>
<p>Goals & Objectives</p> <ul style="list-style-type: none"> • Students will analyze nutritional requirements for endurance athletes. • Students will create a product designed to fuel endurance athletes that feature sweetpotatoes. 	<p>Prepared By: Rebecca O'Brien Family & Consumer Sciences Teacher Apex High School Wake County Public Schools</p>	
<p>North Carolina Family & Consumer Sciences Education Standards:</p>		
<p>Food and Nutrition II 2.00 Understand nutrition principles and applications. 2.04 Understand sports nutrition, meal planning, and food preparation for athletes. 4.00 Analyze food and nutrition opportunities to meet the needs of customer-clients. 4.02 Analyze startup processes for ventures in food and nutrition.</p>		
<p>Family & Consumer Sciences National Standards 3.0 14.2.1 Evaluate the effect of nutrition on health, wellness, and performance. 14.3.2 Design strategies that address the health and nutritional recommendations for individuals and families, including those with special needs.</p>		
<p>Materials Needed</p>	<ul style="list-style-type: none"> • Paper • Writing Utensil • Sweetpotato Nutrition & Benefits to Running Article • Sweetpotato Nutrition & Benefits to Running Article Questions • Sweetpotato Sports Nutrition Product Advertisement • Supplies for creating an advertisement (poster paper, markers, etc.) • Ingredients to prepare sweetpotato sports nutrition product (optional) 	



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<p>Anticipatory Set 20 Minutes Students will be introduced to lesson topic of fueling extreme endurance sports through a quote and class discussion.</p>	<p>Introduce students to ultrarunning and sports nutrition through reading the following quote. Sunny Blende is a sports nutritionist and accomplished ultrarunner (long-distance running with distances starting at 50 kilometers distance) defines an ultramarathon as “an eating and drinking contest, with a little exercise and scenery thrown in.” Have students write a paragraph reflection as a bellringer about the quote. Lead a class discussion about ultrarunning and other endurance sports that require athletes to carefully fuel their body. Ask students “What products are available to fuel athletes?” Students may answer various gels, gummies, bars, and sports drinks. Introduce to students that a new study has shown that a small amount of pureed potato is as effective as carbohydrate gels for endurance athletes. Tell them that over the next couple of days they will explore fueling endurance athletes with sweet potatoes.</p> <p>Teacher may choose to review the following articles for more background information to prepare for the discussion and lesson:</p> <ul style="list-style-type: none"> • https://www.theatlantic.com/health/archive/2019/10/performance-enhancing-potatoes/601159/ • https://www.runnersworld.com/nutrition-weight-loss/a20813788/how-sweet-potatoes-can-help-your-running/ • https://www.sciencedaily.com/releases/2019/10/191018125512.htm • https://www.rei.com/blog/run/eat-long-distance-trail-run 	<ul style="list-style-type: none"> • Paper • Writing Utensil
<p>Sweetpotato Nutrition & Benefits to Running Article and Article Questions 60 Minutes Students will read the Sweetpotato Nutrition & Benefits to Running Article and answer reading questions</p>	<p>Tell students “we are going to learn more about fueling endurance sports through sweetpotatoes through reading an article and answering questions.” Have students individually or in small groups read the Sweetpotato Nutrition & Benefits to Running article and answer the Sweetpotato Nutrition & Benefits to Running Article Questions. Review answers as a class.</p>	<ul style="list-style-type: none"> • APPENDIX A- Sweetpotato Nutrition & Benefits to Running Article • APPENDIX B- Sweetpotato Nutrition & Benefits to Running Article Questions
<p>Sweetpotato Sports Nutrition Product Advertisement 180 Minutes Students will design a product and advertisement using sweetpotatoes for endurance athletes</p>	<p>Students in groups will develop a product to fuel endurance athletes that uses sweetpotatoes as an ingredient. The product will be for a pre-event or post-event snack, or for athletes to carry with them during an event. Students will design the product to meet the nutrient guidelines discussed in the Sweetpotato Nutrition & Benefits to Running article and from previous knowledge about sports nutrition and nutrients learned in class. Students will develop a product recipe, prepare an advertisement for the product, and optionally prepare the product in class. Encourage students to look at https://sweetfeet.ncsweetpotatoes.com/recipes/ for inspiration for possible recipes. Alternatively, the teacher may choose to have the students complete the FCCLA Star Event Food Innovation.</p>	<ul style="list-style-type: none"> • APPENDIX C- Sweetpotato Sports Nutrition Product Advertisement • Supplies for creating an advertisement (poster paper, markers, etc.) • Ingredients to prepare sweetpotato sports nutrition product (optional)

<p>Summary/Evaluation 45 Minutes</p> <p>Students will present their sweetpotato sports nutrition product advertisements to the class and answer reflection questions.</p>	<p>Have students present their Sweetpotato Sports Nutrition Product Advertisements to the class. The teacher may choose to have students prepare their sweetpotato recipe to share with their classmates as well. Teacher may choose to invite the local community or school leaders to view the presentations.</p> <p>Have students complete the following reflection questions after viewing all presentations.</p> <ol style="list-style-type: none"> 1. Why presentation's product was most appealing? Why? 2. Which presentation's product advertisement was most persuasive? Why? 3. Describe three things you learned about sports nutrition from this project. 	<ul style="list-style-type: none"> • Paper • Writing Utensil
<p>Source/Other Resources</p>	<p>Bede, P. (2020, September 17). How Sweet Potatoes Help Your Running. Retrieved November 02, 2020, from https://www.runnersworld.com/nutrition-weight-loss/a20813788/how-sweet-potatoes-can-help-your-running/</p> <p>Hamblin, J. (2020, June 10). Paging Dr. Hamblin: Should I Eat Potatoes While I Run? Retrieved November 02, 2020, from https://www.theatlantic.com/health/archive/2019/10/performance-enhancing-potatoes/601159/</p> <p>Potato as effective as carbohydrate gels for boosting athletic performance, study finds. (2019, October 18). Retrieved November 02, 2020, from https://www.sciencedaily.com/releases/2019/10/191018125512.htm</p> <p>Pre Run Recipes. (n.d.). Retrieved November 02, 2020, from https://sweet-feet.ncsweetpotatoes.com/recipes/</p> <p>Sweetpotato Nutrition & Benefits To Runners. (n.d.). Retrieved November 02, 2020, from https://sweet-feet.ncsweetpotatoes.com/nutrition-recovery/</p> <p>Winn, Y., Yitka Winn is an editor of product content at REI, & Parshley, L. (2017, August 17). What to Eat on Your Long-Distance Trail Run. Retrieved November 02, 2020, from https://www.rei.com/blog/run/eat-long-distance-trail-run</p>	