Rumson-Fair Haven Regional High School

The Science of Nutrition Curriculum

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Section I: Course Description

The Science of Nutrition is a one-semester elective course that provides students with an overview of good nutrition principles that are necessary for physical and mental wellness and a long, healthy life. Students will learn about and discuss the following topics: digestion, basic nutrients, weight management, sports and fitness, and life-span nutrition. The course emphasizes an understanding of today's food and eating trends and gives students the capacity to intelligently evaluate all available sources of nutrition information and make informed decisions. Unit topics include an overview about nutrition, wellness and food choices in today's world, digestion and major nutrients, and body size and weight management.

Section II: NJSLS: New Jersey Student Learning Standards/Learning Objectives

1. **Comprehensive Health and Physical Education**
   https://www.nj.gov/education/cccs/2020/2020%20NJSLS-CHPE.pdf
   - "Successful preparation of students for the opportunities, rigors and advances of the 21st Century cannot be accomplished without a strong and sustained emphasis on the health and wellness of all students. Today's students are continually bombarded with physical, mental, and social influences that affect not only learning in school, but also the lifelong health of the citizens that schools are preparing for graduation. To that end, the New Jersey Student Learning Standards - Comprehensive Health and Physical Education (NJSLS-CHPE) were revised to address the need for students to gain knowledge and skills in caring for themselves, interact effectively with others, and analyze the impact of choices and consequences."

   - ***Standards applicable to The Science of Nutrition:***

• **2.2.2.N.1:** Explore different types of foods and food groups.
• **2.2.2.N.2**: Explain why some foods are healthier to eat than others.
• **2.2.2.N.3**: Differentiate between healthy and unhealthy eating habits.
• **2.2.5.N.1**: Explain how healthy eating provides energy, helps to maintain healthy weight, lowers risk of disease, and keeps body systems functioning effectively.
• **2.2.5.N.2**: Create a healthy meal based on nutritional content, value, calories, and cost.
• **2.2.5.N.3**: Develop a plan to attain a personal nutrition health goal that addresses strengths, needs, and culture.
• **2.2.8.N.1**: Analyze how culture, health status, age and access to healthy foods can influence personal eating habits.
• **2.2.8.N.2**: Identify skills and healthy behaviors that can support adolescents in losing, gaining, or maintaining healthy weights
• **2.2.8.N.3**: Design sample nutritional plans for families with different lifestyles, resources, special needs, and cultural backgrounds; then consider the similarities and differences among the plans.
• **2.2.8.N.4**: Assess personal nutritional health and consider opportunities to improve health and performance (e.g., sports drinks, supplements, balance nutrition).
• **2.2.12.N.1**: Compare and contrast the nutritional trends, eating habits, and the impact of marketing foods on adolescents and young adults nationally and worldwide.

• **2.2.12.N.2**: Determine the relationship of nutrition and physical activity to weight loss, gain, and maintenance.
• **2.2.12.N.3**: Analyze the unique contributions of each nutrient class (e.g., fats, carbohydrates, protein, water, vitamins, minerals) to one's health and fitness.
• **2.2.12.N.4**: Implement strategies and monitor progress in achieving a personal nutritional health plan
• **2.2.12.N.5**: Research present trends in plant based and organic food choices and industries that have shown an impact on lowering heart, cancer, diabetes, and other diseases.

2. **Science**
   https://www.nj.gov/education/cccs/2020/NJSLS-Science.pdf
   - "Scientific and technological advances have proliferated and now permeate most aspects of life in the 21st century. It is increasingly important that all members of our society develop an understanding of scientific and engineering concepts and processes. Learning how to construct scientific explanations and how to design evidence-based solutions provides students with tools to think critically about personal and societal issues and needs. Students can then contribute meaningfully to decision-making processes, such as discussions about climate change, new approaches to health care, and innovative solutions to local and global problems."
   - ***Standards applicable to The Science of Nutrition:***

• **HS-PS3-1** Create a computational model to calculate the change in the energy of one component in a system when the change in energy of the other component(s) and energy flows in and out of the system are known.
• **HS-PS3-4** Plan and conduct an investigation to provide evidence that the transfer of thermal energy when two components of different temperatures are combined within a closed system results in a more uniform energy distribution among the components in the system (second law of thermodynamics).
• **HS-LS1-1** Construct an explanation based on evidence for how the structure of DNA determines the structure of proteins which carry out the essential functions of life through systems of specialized cells.
• **HS-LS1-2** Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.
• **HS-LS1-5** Use a model to illustrate how photosynthesis transforms light energy into stored chemical energy.
• **HS-LS1-6** Construct and revise an explanation based on evidence for how carbon, hydrogen, and oxygen from sugar molecules may combine with other elements to form amino acids and/or other large carbon based molecules.
• **HS-LS1-7** Use a model to illustrate that cellular respiration is a chemical process whereby the bonds of food molecules and oxygen molecules are broken and the bonds in new compounds are formed resulting in a net transfer of energy.
• **HS-LS2-1** Use mathematical representations to support and revise explanations based on evidence about factors affecting biodiversity and populations in ecosystems of different scales.
• **HS-LS2-1** Develop a model to illustrate the role of photosynthesis and cellular respiration in the cycling of carbon among the biosphere, atmosphere, hydrosphere, and geosphere.
• **HS-LS3-1** Ask questions to clarify relationships about the role of DNA and chromosomes in coding the instructions for characteristic traits passed from parents to offspring.
• **HS-LS4-1** Communicate scientific information that common ancestry and biological evolution are supported by multiple lines of empirical evidence.

3. **Career Ready Practices:**
   https://www.state.nj.us/education/cccs/2014/career/CareerReadyPractices.pdf
   - "Career Ready Practices describe the career-ready skills that all educators in all content areas should seek to develop in their students. They are practices that have been linked to increase college, career, and life success. Career Ready Practices should be taught and reinforced in all career exploration and preparation programs with increasingly higher levels of complexity and expectation as a student advances through a program of study."

- CRP1. Act as a responsible and contributing citizen and employee.
- CRP2. Apply appropriate academic and technical skills.
- CRP3. Attend to personal health and financial well-being.
- CRP4. Communicate clearly and effectively and with reason.
- CRP5. Consider the environmental, social and economic impacts of decisions.
- CRP6. Demonstrate creativity and innovation.
- CRP7. Employ valid and reliable research strategies.
- CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
- CRP9. Model integrity, ethical leadership and effective management.
- CRP10. Plan education and career paths aligned to personal goals.
- CRP11. Use technology to enhance productivity.
- CRP12. Work productively in teams while using cultural global competence.

4. ***Standard 8.1 (Computer Science) and 8.2 (Design Thinking)* of the *2020 NJSLS:*** ***https://www.nj.gov/education/cccs/2020/2020%20NJSLS-CSDT.pdf***
   - "The 'Intent and Spirit of the Computer Science and Design Thinking Standards' is to focus on deep understanding of concepts that enable students to think critically and systematically about leveraging technology to solve local and global issues. Authentic learning experiences that enable students to apply content knowledge, integrate concepts across disciplines, develop computational thinking skills, acquire and incorporate varied perspectives, and communicate with diverse audiences about the use and effects of computing prepares New Jersey students for college and careers."
   - • **8.1.5.DA.1**: Collect, organize, and display data in order to highlight relationships or support a claim.
   - • **8.1.5.DA.3**: Organize and present collected data visually to communicate insights gained from different views of the data.
   - • **8.1.5.DA.5**: Propose cause and effect relationships, predict outcomes, or communicate ideas using data.
   - • **8.1.8.DA.1**: Organize and transform data collected using computational tools to make it usable for a specific purpose.
   - • **8.2.12.ED.1:** Use research to design and create a product or system that addresses a problem and make modifications based on input from potential consumers.
   - • **8.2.12.ED.5**: Evaluate the effectiveness of a product or system based on factors that are related to its requirements, specifications, and constraints (e.g., safety, reliability, economic considerations, quality control, environmental concerns, manufacturability, maintenance and repair, ergonomics).
   - • **8.2.12.ED.6:** Analyze the effects of changing resources when designing a specific product or system (e.g., materials, energy, tools, capital, labor).

5. ***Standard 9.4 (Life Literacies and Key Skills)* of the *2020 NJSLS*:** **https://www.nj.gov/education/cccs/2020/2020%20NJSLS-CLKS.pdf**
   - "This standard outlines key literacies and technical skills such as critical thinking, global and cultural awareness, and technology literacy* that are critical for students to develop to live and work in an interconnected global economy."
   - • **9.4.12.CI.1:** Demonstrate the ability to reflect, analyze, and use creative skills and ideas.

- • **9.4.12.CI.2:** Identify career pathways that highlight personal talents, skills, and abilities.
- • **9.4.12.CI.3:** Investigate new challenges and opportunities for personal growth, advancement, and transition.
- • **9.4.12.CT.1:** Identify problem-solving strategies used in the development of an innovative product or practice.
- • **9.4.12.CT.2:** Explain the potential benefits of collaborating to enhance critical thinking and problem solving.
- • **9.4.12.CT.3:** Enlist input from a variety of stakeholders (e.g., community members, experts in the field) to design a service learning activity that addresses a local or global issue.
- • **9.4.12.CT.4:** Participate in online strategy and planning sessions for course-based, school-based, or other project and determine the strategies that contribute to effective outcomes.
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- • **9.4.12.IML.1:** Compare search browsers and recognize features that allow for filtering of information.
- • **9.4.12.IML.2:** Evaluate digital sources for timeliness, accuracy, perspective, credibility of the source, and relevance of information, in media, data, or other resources
- • **9.4.12.TL.3**: Analyze the effectiveness of the process and quality of collaborative environments.
- • **9.4.12.TL.4:** Collaborate in online learning communities or social networks or virtual worlds to analyze and propose a resolution to a real-world problem.

6. ***LGBT and Disabilities Law: N.J.S.A. 18A:35-4.35*:**
   https://www.nj.gov/education/cccs/2020/2020%20NJSLS-CLKS.pdf
   - A transformative approach to the inclusion of lessons and resources/texts on the contributions and issues concerning the LGBTQ+ population and people with disabilities will be implemented across all core subjects in accordance with state law: "A board of education shall include instruction on the political, economic, and social contributions of persons with disabilities and lesbian, gay, bisexual, and transgender people, in an appropriate place in the curriculum of middle school and high school students as part of the district's implementation of the New Jersey Student Learning Standards (N.J.S.A.18A:35-4.36). A board of education shall have policies and procedures in place pertaining to the selection of instructional materials to implement the requirements of N.J.S.A. 18A:35-4.35."
7. **Climate Change:**
   https://www.nj.gov/education/cccs/2020/
   - "Climate Change across all content areas, leveraging the passion students have shown for this critical issue and providing them opportunities to develop a deep understanding of the science behind the changes and to explore the solutions our world desperately needs"
8. **Acquisition/development/refinement of the higher-order critical thinking skills aligned with the *Revised Bloom's Taxonomy of Cognitive Objectives***

Section III: Curriculum Modifications

The *Science of Nutrition Curriculum* is subject to case-by-case modifications to support/advance the needs of all students, including special education students, English language learners, gifted students and those at risk of school failure. These modifications are based on Individualized Learning Programs (IEPs), recommendations made by the district's English Language Learners (ELL) coordinator, feedback from members of the Intervention & Referral Services Team (*I&RS*) for at-risk students, and 504 Plans.

Section IV: Preparation for Standardized Testing

Instruction in *The Science of Nutrition* Is aligned with the requirements of state and national standardized assessments, including the *NJSLA*, the *ACT*, the *PSAT* and the *SAT*. The *End of Marking Period Assessments* for *The Science of Nutrition* also demonstrate alignment with the aforesaid standardized assessments.

Section V: Curriculum Pacing Guide

Curriculum Pacing Guide		
Course Title: The Science of Nutrition		**Grade Level: 9-12**
Unit I: Macro-micro	1st Semester: Sept (4 weeks)	2nd Semester: Jan-Feb (4 weeks)
Unit II: Calories and Energy	1st Semester: Oct (4 weeks)	2nd Semester: Feb-Mar (4 weeks)
Unit III: Anatomical Nutrition	1st Semester: Nov (2 weeks)	2nd Semester: Mar (2 weeks)
Unit IV: Nutrition for Sport	1st Semester: Nov-Dec (4 weeks)	2nd Semester: Apr-May (4 weeks)
Unit V: Diets	1st Semester: Dec (2 weeks)	2nd Semester: May (2 weeks)
Unit VI: Planning and Preparing	1st Semester: jan (2 weeks)	2nd Semester: Jun (2 weeks)

Section VI: Texts and Instructional Resources

The following texts and instructional resources are employed in *The Science of Nutrition*:

- *Kahoot:* https://kahoot.com/
- *Quizlet:* https://quizlet.com/
- *Myplate.gov:* https://www.choosemyplate.gov/
- *Youtube:* https://www.youtube.com/
- *Podcasts (Barbell Shrugged, Simpli Faster, Just Fly):*
- *NSCA Journal:* https://www.nsca.com/
- *The Complete Guide to Sports Nutrition (Anita Bean)*
- *Common Sense Education:* (www.commonsense.org)
- Biolayne: https://www.biolayne.com/
- GoToMeeting: https://www.gotomeeting.com/
- GoogleClass: https://classroom.google.com/u/0/h

- National Agriculture in the Classroom: https://www.agclassroom.org/student/tours.cfm

Section VII: Grading Formula and Assessment Modes

Marking period grades in *The Science of Nutrition* are determined via a percentage weighting model that is comprised of the following grading categories:

Marking Periods 1, 2 & 4

Category	
Class Work	50%
Assessments	30%
End of Marking Period Assessment	20%

Marking Periods 3

Category	3
Class Participation	15%
Class Work	25%
Homework	25%
Assessments	35%

Section VIII: Unit Templates

The following *Unit Templates* have been established for the *The Science of Nutrition Curriculum* by *The Science of Nutrition Instructional Team:*

Unit 1: Macro/micronutrients
Understanding proteins, carbohydrates, fats, minerals and vitamins
Students will... Identify various sources of each nutrient Explain the role of each nutrient Describe how deficiency in a particular nutrient could affect the body Give examples of meals that include all 3 macronutrients Differentiate between plant/animal sources of protein Understand complete/incomplete proteins List essential/nonessential amino acids List branched chain amino acids Differentiate between simple/complex carbohydrates Understand the difference between saturated, trans, monounsaturated, and polyunsaturated fats Identify different food sources for each type of fat Explain the role of micronutrients List key benefits of different micronutrient rich foods Recognize deficiency and toxicity symptoms associated with minerals

Explore the different classifications of vitamins.
Learn why vitamins are important and determine their sources
Identify deficiency and toxicity symptoms for vitamins

Standards/Core Ideas/Performance Expectations

2020 New Jersey Student Learning Standards - Comprehensive Health and Physical Education

- • **2.2.2.N.1:** Explore different types of foods and food groups.
- • **2.2.2.N.2**: Explain why some foods are healthier to eat than others.
- • **2.2.2.N.3**: Differentiate between healthy and unhealthy eating habits.
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2020 New Jersey Student Learning Standards – Science

- • **HS-LS4-1** Communicate scientific information that common ancestry and biological evolution are supported by multiple lines of empirical evidence.

2020 New Jersey Student Learning Standards – Computer Science and Design Thinking

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2020 New Jersey Student Learning Standards – Life Literacies and Key Skills

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2020 New Jersey Student Learning Standards – Career Ready Practices

- CRP1. Act as a responsible and contributing citizen and employee.
- CRP2. Apply appropriate academic and technical skills.
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- CRP4. Communicate clearly and effectively and with reason.
- CRP5. Consider the environmental, social and economic impacts of decisions.
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- CRP7. Employ valid and reliable research strategies.
- CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
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- CRP10. Plan education and career paths aligned to personal goals.
- CRP11. Use technology to enhance productivity.
- CRP12. Work productively in teams while using cultural global competence.

Unit Essential Questions	Unit Enduring Understandings
● What are the roles of nutrients in our bodies and where can they be found in food? ● What does PCC stand for? ● What does amount/type/timing mean?	● Students will be able to identify different nutrients in foods and understand what each macro/micronutrient does for their bodies ● Students will understand that a plate with a source of protein, carbohydrate, and vegetable (color) can provide balanced nutrition

	● Students will understand that the amount of calories has a greater effect on weight gain/loss than the type or timing of the calories

Evidence of Learning		
Suggested Formative Assessment: ● classwork ● homework ● projects ● performance activities ● Entrance/exit cards ● Warm ups ● Kahoot	**Suggested Summative Assessment:** ● Quizzes ● Tests	**Resources Needed:** ● Slides ● Kahoot ● Docs ● Youtube ● Forms ● NSCA Journals

Unit 2: Calories and Energy

Understanding the relationship between nutrients, activity and energy

Students will...

Explore the concept of thermodynamics and how it relates to nutrition and energy consumption/production

Learn and apply the concept of energy balance

List the amount of calories in each macronutrient

Understand how the amount of calories in foods are determined

Understand fiber and its role in digestion

Understand the coefficient of digestibility

Understand how we determine how many calories are being used in activity

Identify factors that affect daily energy expenditure

Begin to calculate optimum calorie needs based on energy expenditure and various program goals

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- CRP11. Use technology to enhance productivity.
- CRP12. Work productively in teams while using cultural global competence.

Unit Essential Questions	Unit Enduring Understandings
● Why is it important to understand how much energy is being provided by the food I eat? ● How does activity affect calories? ● What are the results of a caloric surplus/deficit? ● What role do thermodynamics play in nutrition?	● Students will understand the concept of energy balance ● Students will understand the relationship between calories and activity ● Students will understand that calories are a form of energy ● Students will understand how the laws of thermodynamics apply to metabolism

Evidence of Learning		
Suggested Formative Assessment: ● classwork	**Suggested Summative Assessment:** ● Quizzes	**Resources Needed** ● Kahoot ● Docs

• homework • projects • performance activities • Entrance/exit cards • Warm ups • Kahoot	• Tests	• Youtube • Podcasts • Screencastify • Forms • Slides • NSCA Journals

Unit 3: Anatomical Nutrition
Understanding the anatomical structures involved in nutrition
Students will... Identify the structure and function of the upper gastrointestinal tract Identify the structure and function of the lower gastrointestinal tract Understand inflammation as a physiological response Understand how food moves through the small intestine Differentiate between peristalsis, segmentation and pendular movement Understand the role of the small intestine in nutrient absorption and digestion Identify the structure and function of cells Define anabolism and catabolism Observe how cells react to fasting Understand the physiology of adipose tissue Be introduced to cellular respiration and the Krebs cycle Learn the difference between glycogenesis, glycogenolysis, and gluconeogenesis Observe how protein synthesis occurs within cells Explain how phosphorylation works (substrates/oxidative) Understand the process of lipolysis/lipogenesis works Learn how the body metabolizes alcohol
Standards/Core Ideas/Performance Expectations
2020 New Jersey Student Learning Standards - Comprehensive Health and Physical Education • **2.2.2.N.1:** Explore different types of foods and food groups. • **2.2.2.N.2**: Explain why some foods are healthier to eat than others. • **2.2.2.N.3**: Differentiate between healthy and unhealthy eating habits. • **2.2.5.N.1**: Explain how healthy eating provides energy, helps to maintain healthy weight, lowers risk of disease, and keeps body systems functioning effectively. • **2.2.5.N.2**: Create a healthy meal based on nutritional content, value, calories, and cost. • **2.2.5.N.3**: Develop a plan to attain a personal nutrition health goal that addresses strengths, needs, and culture. • **2.2.8.N.1**: Analyze how culture, health status, age and access to healthy foods can influence personal eating habits. • **2.2.8.N.2**: Identify skills and healthy behaviors that can support adolescents in losing, gaining, or maintaining healthy weights • **2.2.8.N.3**: Design sample nutritional plans for families with different lifestyles, resources, special needs, and cultural backgrounds; then consider the similarities and differences among the plans. • **2.2.8.N.4**: Assess personal nutritional health and consider opportunities to improve health and performance (e.g., sports drinks, supplements, balance nutrition).

- • **2.2.12.N.1**: Compare and contrast the nutritional trends, eating habits, and the impact of marketing foods on adolescents and young adults nationally and worldwide.
- • **2.2.12.N.2**: Determine the relationship of nutrition and physical activity to weight loss, gain, and maintenance.
- • **2.2.12.N.3**: Analyze the unique contributions of each nutrient class (e.g., fats, carbohydrates, protein, water, vitamins, minerals) to one's health and fitness.
- • **2.2.12.N.4**: Implement strategies and monitor progress in achieving a personal nutritional health plan
- • **2.2.12.N.5**: Research present trends in plant based and organic food choices and industries that have shown an impact on lowering heart, cancer, diabetes, and other diseases.

2020 New Jersey Student Learning Standards – Science

- • **HS-LS1-1** Construct an explanation based on evidence for how the structure of DNA determines the structure of proteins which carry out the essential functions of life through systems of specialized cells.
- • **HS-LS1-3** Plan and conduct an investigation to provide evidence that feedback mechanisms maintain homeostasis.
- • **HS-LS2-1** Construct and revise an explanation based on evidence for the cycling of matter and flow of energy in aerobic and anaerobic conditions.
- • **HS-LS4-1** Communicate scientific information that common ancestry and biological evolution are supported by multiple lines of empirical evidence.

2020 New Jersey Student Learning Standards – Computer Science and Design Thinking

- • **8.1.5.DA.1**: Collect, organize, and display data in order to highlight relationships or support a claim.
- • **8.1.5.DA.3**: Organize and present collected data visually to communicate insights gained from different views of the data.
- • **8.1.5.DA.5**: Propose cause and effect relationships, predict outcomes, or communicate ideas using data.
- • **8.1.8.DA.1**: Organize and transform data collected using computational tools to make it usable for a specific purpose.
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- • **8.2.12.ED.6:** Analyze the effects of changing resources when designing a specific product or system (e.g., materials, energy, tools, capital, labor).

2020 New Jersey Student Learning Standards – Life Literacies and Key Skills

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- • **9.4.12.TL.4:** Collaborate in online learning communities or social networks or virtual worlds to analyze and propose a resolution to a real-world problem.

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- CRP3. Attend to personal health and financial well-being.
- CRP4. Communicate clearly and effectively and with reason.
- CRP5. Consider the environmental, social and economic impacts of decisions.
- CRP6. Demonstrate creativity and innovation.
- CRP7. Employ valid and reliable research strategies.
- CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
- CRP9. Model integrity, ethical leadership and effective management.
- CRP10. Plan education and career paths aligned to personal goals.
- CRP11. Use technology to enhance productivity.
- CRP12. Work productively in teams while using cultural global competence.

Unit Essential Questions	Unit Enduring Understandings
● What organs are responsible for the digestion and absorption of nutrients? ● How are different nutrients metabolized? ● What processes need to occur for the body to receive energy? ● How do different foods affect digestion?	● Students will understand how many bodily systems are involved in the digestion and absorption of nutrients ● Students will understand the role of each organ within the digestive tract ● Students will understand that good nutrition helps with digestion ● Students will understand that the body manufactures energy through different metabolic processes such as the Krebs cycle

Evidence of Learning

Suggested Formative Assessment:	Suggested Summative Assessment:	Resources Needed:
● classwork ● homework ● projects ● performance activities ● Entrance/exit cards ● Warm ups ● Kahoot	● Quizzes ● Tests	● Slides ● Kahoot ● Docs ● Youtube ● Forms ● NSCA Journals

Unit 4:Nutrition for Sport

Students will explore the role of nutrition in sport performance

Students will...

Examine how nutrition for general health and wellness could differ from nutrition for athletes

Determine best practices for maintaining proper hydration in a sport setting

Learn how to apply proper refueling principles to various training programs

Discuss special considerations for dealing with food allergies

Learn how to construct plans for weight gain/loss

Learn best practices for recomposition

View various ways of assessing body composition and discuss pros/cons of each

Investigate historical views on eating disorders

Evaluate treatment methods for anorexia, bulimia, binge eating and night eating

Scrutinize risk factors for eating disorders and strategies for reducing their development

Evaluate the role of supplements in a nutrition plan

Observe how sports dieticians work with athletes at the collegiate and professional levels

Explore various ways to maximize endurance, strength and performance

Standards/Core Ideas/Performance Expectations

2020 New Jersey Student Learning Standards - Comprehensive Health and Physical Education

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- CRP10. Plan education and career paths aligned to personal goals.
- CRP11. Use technology to enhance productivity.
- CRP12. Work productively in teams while using cultural global competence.

Unit Essential Questions	Unit Enduring Understandings
● How does nutrition for sports differ from nutrition for general health? ● How can the nutritional needs of an athlete be assessed/calculated? ● What does a career in the sport nutrition field look like? ● How could nutritional needs vary based on the demands of particular sports/positions? ● How can nutritional recommendations vary among different populations of athletes? ● What is best practice when educating athletes on the subject of eating disorders?	● Students will understand how flexible and dynamic nutrition can be as relates to athletics ● Students will be aware of the psychological aspects involved with nutrition as it pertains to eating disorders ● Students will view sports nutrition as a potential career field ● Students will understand that different sports and positions may require different nutritional strategies for optimal performance ● Students will gain perspective on supplements as they pertain to sports performance ● Students will understand that nutrition can be looked at as a continuum

Evidence of Learning		
Suggested Formative Assessment: ● classwork ● homework ● projects ● performance activities ● Entrance/exit cards ● Warm ups ● Kahoot	**Suggested Summative Assessment:** ● Quizzes ● Tests	**Resources Needed:** ● Slides ● Kahoot ● Docs ● Youtube ● Forms ● Gotomeeting ● NSCA Journals

Unit 5: Diets
Exploring and understanding the methodology behind many of the most common name brand diets
Students will... Assess the obesity epidemic in the U.S. and the associated health risks Discuss food deserts Review food related allergies Read/Review various name brand diets Understand the intended purpose of each Understand how each is intended to function Discuss and debate pros/cons to each Show examples of meals/plans that would coincide with each Discuss the psychological aspect of nutrition when dieting

Standards/Core Ideas/Performance Expectations

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Unit Essential Questions	Unit Enduring Understandings
● How do some of the most popular name brand diets work? ● What are the pros/cons of diets? ● Why do some diets work for some people and not for others? ● What is the difference between dieting and general nutrition? ● What types of psychological factors surround diet adherence?	● Students will understand that many of the most popular diets are based on just a few core nutritional principles ● Students will understand that weight loss or gain is a result of caloric balance ● Students will understand that there are psychological factors involved in diet adherence and effectiveness

• What hormonal factors are involved in diets?	

Evidence of Learning		
Suggested Formative Assessment: • classwork • homework • projects • performance activities • Entrance/exit cards • Warm ups • Kahoot	**Suggested Summative Assessment:** • Quizzes • Tests	**Resources Needed:** • Slides • Kahoot • Docs • Screencastify • Podcasts • Youtube • Forms • NSCA Journals

Unit 6: Meal Planning and Preparation

Applying learned material in a real world setting

Students will...
Create extended nutrition plans
Observe food sourcing via virtual farm tours
Create week long personal menus
Calculate caloric needs for various goals
Learn basic culinary skills needed for food preparation
Explain reasoning behind food selections within a meal plan
Learn to weigh and measure to determine portion sizes and caloric load
Learn different strategies for food choice when eating away from home
Learn how to plan for a trip to the grocery store
Consider different constraints when planning meals

Standards/Core Ideas/Performance Expectations

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Unit Essential Questions	Unit Enduring Understandings
● Why is planning ahead important for good nutrition? ● Why is it helpful to know how grocery stores are organized? ● How can eating away from home challenge a nutrition plan? ● What strategies work best for determining portion sizes? ● How can basic culinary knowledge affect good nutrition?	● Students will understand how to plan ahead ● Students will understand how to navigate a grocery store ● Students will understand how to make good nutritional choice when eating away from home ● Students will understand basic culinary techniques to support good nutrition ● Students will understand how weigh and measure foods to determine desired portions and calories

Evidence of Learning

Suggested Formative Assessment:	Suggested Summative Assessment:	Resources Needed:
● classwork ● homework ● projects ● performance activities ● Entrance/exit cards ● Warm ups ● Kahoot	● Quizzes ● Tests	● Slides ● Kahoot ● Docs ● Youtube ● Forms ● NSCA Journals

Section IX: Unit Reflection

The Science of Nutrition Instructional Team must confer upon the completion of each instructional unit in *The Science of Nutrition* and rate the degrees to which the instructional units meet performance criteria established by the New Jersey Department of Education using the *Unit Reflection Form*. Completed *Unit*

*Reflection Form*s must be submitted to the Department Supervisor for approval upon completion of curriculum implementation with a complementing list of suggested modifications to *The Science of Nutrition Curriculum*.

Lesson Activities:	Strongly	Moderately	Weakly
Foster student use of technology as a tool to develop critical thinking, creativity and innovation skills;			
Are challenging and require higher order thinking and problem solving skills;			
Allow for student choice;			
Provide scaffolding for acquiring targeted knowledge/skills;			
Integrate global perspectives;			
Integrate 21st century skills;			
Provide opportunities for interdisciplinary connection and transfer of knowledge and skills;			
Are varied to address different student learning styles and preferences;			
Are differentiated based on student needs;			
Are student-centered with teacher acting as a facilitator and co-learner during the teaching and learning process;			
Provide means for students to demonstrate knowledge and skills and progress in meeting learning goals and objectives;			
Provide opportunities for student reflection and self-assessment;			
Provide data to inform and adjust instruction to better meet the varying needs of learners;			