

Grade level: 10-12<sup>th</sup> Grade

Course Title: Natural Living

Topic/Concept: natural living

Time Allotment: 4 weeks

Unit Sequence: Canning and Preserving Foods

**Major Concepts to be learned:**

Elderberry Syrup, Spaghetti Sauce, Apple Pie Filling, Jams & Jellies

**Expected Skills to be demonstrated:**

Students will be able to correctly prepare and package foods for long-term storage  
Students will follow kitchen safety guidelines.

**PA Standards/Anchors:**

11.3.9.A Explain how scientific and technological developments enhance our food supply (e.g., food preservation techniques, packaging, nutrient fortification).  
11.3.9.G Analyze the application of physical and chemical changes that occur in food during preparation and preservation.

**Eligible Content:**

Learning about preservation techniques, Chapter 22 Foods for Today Book  
Learning about changes that happen during the preparation and storage of foods and applying that information to choosing a preparation and storage method that makes the most sense

**Instructional Strategies:**

Food labs  
Lecture  
Group Work  
Reading

**Assessments:**

Projects accompanied with rubric  
Reflection Questions  
Discussion

Grade level: 10-12<sup>th</sup> Grade

Course Title: Natural Living

Topic/Concept: natural living

Time Allotment: 3 weeks

Unit Sequence: Fall Gardening

**Major Concepts to be learned:**

Planting Garlic, No-Till Gardening, Heirloom Seed Saving

**Expected Skills to be demonstrated:**

Students will be able to demonstrate content knowledge about Garlic.  
Students will be able to plant garlic correctly and tend it until harvest.  
Students will be able to demonstrate content knowledge about no-till gardening and be able to explain the benefits of it.  
Students will be able to harvest and package seeds from the garden.

**PA Standards/Anchors:**

4.1.12.C Research how humans affect energy flow within an ecosystem.  
Describe the impact of industrial, agricultural, and commercial enterprises on an ecosystem

**Eligible Content:**

Gardening including planting, tending, and harvesting  
No-till and how it affects the soil

**Instructional Strategies:**

Garden labs  
Lecture  
Reading  
Watch documentary

**Assessments:**

Observation  
Projects  
Reflection questions  
Discussion

Grade level: 10-12<sup>th</sup> Grade

Course Title: Natural Living

Topic/Concept: natural living

Time Allotment: 2 weeks

Unit Sequence: Composting

**Major Concepts to be learned:**

Why compost?, How does it work?, Composting Methods, What is compostable?

**Expected Skills to be demonstrated:**

Students will be able to demonstrate content knowledge regarding the benefits of composting and composting methods.

Students will be able to determine whether something is compostable or not.

Students will be able to set up a composting system.

**PA Standards/Anchors:**

FACS: 2.2 (2): Determine individual and family responsibility in relation to the environmental trends and issues

• 3.4 (4): Examine waste management issues

**Eligible Content:**

Entire unit

**Instructional Strategies:**

Lecture  
Reading  
Videos  
Hands on activities

**Assessments:**

Projects  
Discussion  
Reflection questions

Grade level: 10-12<sup>th</sup> Grade

Course Title: Natural Living

Topic/Concept: natural living

Time Allotment: 4 weeks

Unit Sequence: Toxins in Our Food

**Major Concepts to be learned:**

Organic foods, pesticides and fungicides, sustainable farming, laws related to farming, GMOs

**Expected Skills to be demonstrated:**

Students will be able to demonstrate an understanding of organic certification and what an organic label really means.  
Students will be able to identify common pesticides and fungicides, their benefits, and the risks involved in using them.  
Students will be able to explain what sustainable farming is, identify major sustainable farming methods, and explain the benefits.  
Students will be able to explain what a GMO is and identify possible risks.

**PA Standards/Anchors:**

4.4.12.A Research and analyze the social, political, economic, and environmental factors that affect agricultural systems.  
11.3.12.B Evaluate the role of Government agencies in safeguarding our food supply (e.g., USDA, FDA, EPA and CDC).  
11.3.12.C Evaluate sources of food and nutrition information.  
4.4.12.B Research and evaluate laws and policies that affect the food and fiber system.  
4.4.12.D Describe how policies, regulations, and laws affect the technologies adopted in agriculture.

**Eligible Content:**

All content areas included touch on these standards.

**Instructional Strategies:**

Lecture  
Videos  
Reading  
Research

**Assessments:**

Quizzes  
Tests  
Discussions  
Reflective questions

Grade level: 10-12<sup>th</sup> Grade

Course Title: Natural Living

Topic/Concept: natural living

Time Allotment: 4 weeks

Unit Sequence: Toxins in Our Beauty Products

**Major Concepts to be learned:**

Laws related to beauty product production, what to look out for, making your own beauty products, cleaning products, reading labels

**Expected Skills to be demonstrated:**

Students will be able to demonstrate an understanding of the laws related to beauty product production and how that affects them.  
Students will be able to analyze product labels and make informed decisions about the products that they use.  
Students will be able to follow directions and create a usable beauty product.

**PA Standards/Anchors:**

**Eligible Content:**

11.1.9.D Explain how consumer rights and responsibilities are protected (e.g., government agencies, consumer protection agencies, consumer action groups).  
11.1.12.F Compare and contrast the selection of goods and services by applying effective consumer strategies.

Laws related to beauty product production  
Reading Labels

**Instructional Strategies:**

**Assessments:**

Lab  
Lecture  
Reading  
Videos  
Class discussion

Lab  
Projects  
Reflection questions  
Discussion

Grade level: 10-12<sup>th</sup> Grade

Course Title: Natural Living

Topic/Concept: natural living

Time Allotment: 7 weeks

Unit Sequence: Healthcare

**Major Concepts to be learned:**

Food as medicine, supporting a healthy immune system, medicinal plants, chiropractic care, fermented foods, water, fevers, grounding, stress and mental health, root causes vs just treating symptoms, importance of sleep

**Expected Skills to be demonstrated:**

Students will be able to recognize practices that help support a healthy immune system and be able to apply that information to create a lifestyle plan.  
Students will be able to name common herbal actions and be able to tell you which herbs fall into that category.  
Students will be able to create a diet for a person based on the background information of disease risk factors.

**PA Standards/Anchors:**

11.3.9.D Analyze relationship between diet and disease and risk factors (e.g., calcium and osteoporosis; fat, cholesterol and heart disease; folate and birth defects; sodium and hypertension).

**Eligible Content:**

Food as medicine, supporting a healthy immune system, Fermented foods, medicinal plants

**Instructional Strategies:**

Lecture  
Discussion  
Videos  
Research  
Hands on activities

**Assessments:**

Test  
Discussion  
Reflection questions  
Projects  
Labs

Grade level: 10-12<sup>th</sup> Grade

Course Title: Natural Living

Topic/Concept: natural living

Time Allotment: 2 weeks

Unit Sequence: Survival Skills Basics

**Major Concepts to be learned:**

Building a shelter, finding water, starting a fire, foraging for food, using a compass, self defense, first aid, situational awareness

**Expected Skills to be demonstrated:**

Students will be able to construct a shelter that meets the guidelines of what was learned in class.  
Students will be able to explain how to find a clean water source or how to filter water appropriately in a survival situation.  
Students will be able to identify common edible forage in western Pennsylvania and common poisonous plants.

**PA Standards/Anchors:**

**Eligible Content:**

PS:C1.7 Apply effective problem-solving and decision-making skills to make safe and healthy choices

All content in this unit applies

**Instructional Strategies:**

**Assessments:**

Hands-on activities  
Guest speaker  
Lecture  
Videos  
Discussion

Project  
Discussion  
Reflection questions

Grade level: 10-12<sup>th</sup> Grade

Course Title: Natural Living

Topic/Concept: natural living

Time Allotment: 3 weeks

Unit Sequence: Reduce, Reuse, Recycle

**Major Concepts to be learned:**

Pollution, Who cares?, What can we do?, Reduce, Reuse, Recycle

**Expected Skills to be demonstrated:**

Students will be able to identify common sources of pollution and will understand how their daily choices make an impact. Students will be able to dictate how pollution affects them, their surrounding community, and the world. They will also be able to dictate why that matters. Students will be able to correctly identify a practice as reducing, reusing, or recycling. Students will be able to design a plan to mitigate a proposed pollution concern.

**PA Standards/Anchors:**

4.5.12.C Analyze the costs and benefits of means to control pollution. Analyze the role of technology in the reduction of pollution. Research and analyze the local, state, and national laws that deal with point and non-point source pollution. Explain mitigation and its role in maintaining environmental health.

4.5.12.E Analyze how consumer demands promote the production of pollutants that affect human health.

11.1.9.A Analyze current conservation practices and their effect on future renewable and non-renewable resources. Refuse Reduce Reuse Recycle

4.3.12.A Evaluate the advantages and disadvantages of using renewable and nonrenewable resources. Explain how consumption rate affects the sustainability of resource use. Evaluate the advantages and disadvantages of using renewable resources such as solar power, wind power, and biofuels

**Eligible Content:**

Entire unit addresses these standards

**Instructional Strategies:**

Videos  
Lecture  
Class discussion  
Projects

**Assessments:**

Presentation  
Project  
Discussion questions  
Quiz

Grade level: 10-12<sup>th</sup> Grade

Course Title: Natural Living

Topic/Concept: natural living

Time Allotment: 7 weeks

Unit Sequence: Gardening

**Major Concepts to be learned:**

Pest Deterrents, Mitigating plant disease, propogating plants and seedlings, native plants, soil testing, soil ammendments, hydroponics, square foot gardening

**Expected Skills to be demonstrated:**

Students will be able to identify common pests and provide a solution to mitigate the issue.  
Students will be able to identify plant diseases and provide a solution to mitigate the issue.  
Students will be able to propagate plants from seed.  
Students will be able to identify native plants.  
Students will be able to take a soil sample and determine what soil amendments should be added.  
Students will be able to design a square-foot garden.

**PA Standards/Anchors:**

4.5.12.B Evaluate pest management using methods such as cost/benefit analysis, cumulative effects analysis, environmental impact analysis, ethical analysis, and risk analysis.  
4.1.10.C Evaluate the efficiency of energy flow within a food web. Describe how energy is converted from one form to another as it moves through a food web (photosynthetic, geothermal).  
11.2.9.D Analyze the space requirements for a specified activity to meet a given need (e.g., family room, home office, kitchen).

**Eligible Content:**

Pest deterrents  
Entire unit  
Square foot gardening

**Instructional Strategies:**

Projects  
Garden labs  
Lecture  
Reading  
Videos

**Assessments:**

Projects  
Class discussion  
Reflection questions