Subject(s): Vocations

PENNSYLVANIA Date: April 13, 2014 ET

Know:	Understand:	Do:
13.4.A – Compact Analyze entrepreneurship as it relates to personal career goals and corporate opportunities.	Students should understand the important role that all pollinators play in our ecosystem	<b>3.4.12.E2. – Essential</b> AGRICULTURAL AND RELATED BIOTECHNOLOGIES - Compare and contrast the technologies of biotechnology, conservation, bio-fuels, and ecosystems as they relate to managing Earth's resources effectively.
<b>13.1.B Compact</b> Analyze career options based on personal interests, abilities, aptitudes, achievements and goals.		<b>13.1.A – Essential</b> Relate careers to individual interests, abilities, and aptitudes.
<b>13.1.E – Compact</b> Justify the selection of a career.		

Subject(s): Vocations

Common Assessments on what students should know and do in this unit:

- Written Test
- Identification Guide
- Plant Variety
- Enemies of Pollinators

Subject(s): Vocations 2. Assessments 1

### Short Description:

### Written Test

Long Description:

Students will complete a written test for this pollinators unit

Differentiation:

Modification will be made when necessary for different levels of learning

Time (in days):

1

Subject(s): Vocations 2. Assessments 2

### Short Description:

Identification Guide

Long Description:

Students will create an identification guide for the different pollinators in Pennsylvania

Differentiation:

Modification will be made when necessary for different levels of learning

Time (in days):

3

Subject(s): Vocations 2. Assessments 3

### Short Description:

**Plant Variety** 

Long Description:

Students will create a plant variety chart that will categorize plants with different pollinators

Differentiation:

Modification will be made when necessary for different levels of learning

Time (in days):

3

Subject(s): Vocations 2. Assessments 4

### Short Description:

**Enemies of Pollinators** 

Long Description:

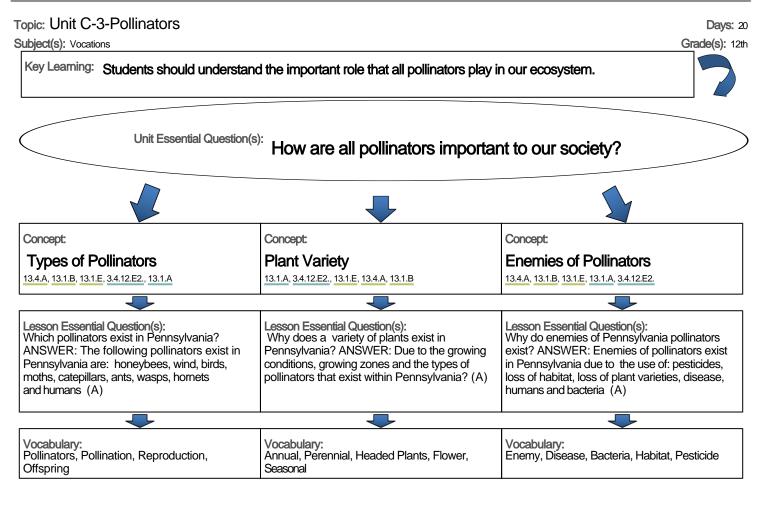
Students will create a chart of the different enemies of pollinators in Pennsylvania

Differentiation:

Modification will be made when necessary for different levels of learning

Time (in days):

3



Additional Information:	
Attached Document(s):	

Vocab Report for Topic: Unit C-3-Pollinators Subject(s): Vocations

# Concept: Types of Pollinators

Pollinators - Anything that helps to spread seeds of plants Pollination - The act of distributing seeds from plants Reproduction - The increase of a living organism Offspring - A new plant or animal from its parent

# Concept: Plant Variety

Annual - Plants that live their life in one cycle Perennial - Plants that live their life through many cycles Headed Plants - Plants that create large seed heads Flower - The color part of the plant Seasonal - Plants that grow at a certain time of the year

# Concept: Enemies of Pollinators

Enemy - Anything that has a negative affect on another organism Disease - Microscopic organism that affects plants Bacteria - A microscopic organism that has a negative affect on plants Habitat - A place where plants and animal live Pesticide - Chemicals used to control plant and animal growth

Subject(s): Vocations

5. Launch Activity 1

#### How are you going to get students engaged?

Develop student interest and link their prior knowledge. Start the Student Learning Map of the unit with students. Preview key vocabulary with students.:

Short Description:

Pollinators

Long Description:

Students will create a list of the pollinators that exist in Pennsylvania

Differentiation:

Modification will be made when necessary for different levels of learning

Time (in days):

1

Subject(s): Vocations Concept: Types of Pollinators

### 5. Acquisition Lesson

Plan for the Concept, Topic, or Skill -- Not for the Day

## Lesson Essential Question:

#### Which pollinators exist in Pennsylvania?

ANSWER: The following pollinators exist in Pennsylvania are: honeybees, wind, birds, moths, catepillars, ants, wasps, homets and humans

What do students need to learn to be able to answer the Essential Question?

Assessment Prompt 1: Why do different pollinators exist?

## Activating Strategy:

Brainstorm Web

Key vocabulary to preview:

Wordsplash

## Teaching Strategies:

Graphic Organizer:

Character Map

Instruction:

AP: Why do different pollinators exist?

Hook & Link

Assignment and/or Assessment:

Identification Guide

## Summarizing Strategy:

Ticket Out the Door

Differentiation:

Modification will be made when necessary for different levels of learning

Days: 20

Subject(s): Vocations Concept: Types of Pollinators

5. Acquisition Lesson

Review / Revise:

**Reflection Questions** 

Resources and Materials:

Agricultural Science Textbook

Time (in days):

3

Days: 20

Subject(s): Vocations Concept: Plant Variety

### 5. Acquisition Lesson

Plan for the Concept, Topic, or Skill -- Not for the Day

### Lesson Essential Question:

#### Why does a variety of plants exist in Pennsylvania?

ANSWER: Due to the growing conditions, growing zones and the types of pollinators that exist within Pennsylvania?

What do students need to learn to be able to answer the Essential Question?

Assessment Prompt 1: List and explain the different plants that exist in Pennsylvania

## Activating Strategy:

**Prediction Guide** 

Key vocabulary to preview:

Wordsplash

## Teaching Strategies:

Graphic Organizer:

Compare and Contrast

Instruction:

AP: List the different plants that exist in Pennsylvania

Hook & Link

Assignment and/or Assessment:

Identification Guide

## Summarizing Strategy:

3-2-1

Differentiation:

Modification will be made when necessary for different levels of learning

Review / Revise:

## <u>Topic: Unit C-3-Pollinators</u> Subject(s): Vocations Concept: Plant Variety

5. Acquisition Lesson

**Reflection Questions** 

Resources and Materials:

Agricultural Science Textbook

Time (in days):

3

Days: 20

### Subject(s): Vocations Concept: Enemies of Pollinators

### 5. Acquisition Lesson

Plan for the Concept, Topic, or Skill -- Not for the Day

## Lesson Essential Question:

### Why do enemies of Pennsylvania pollinators exist?

ANSWER: Enemies of pollinators exist in Pennsylvania due to the use of: pesticides, loss of habitat, loss of plant varieties, disease, humans and bacteria

What do students need to learn to be able to answer the Essential Question?

Assessment Prompt 1: Create a list of enemies of pollinators in Pennsylvania and explain their origin

## Activating Strategy:

Frayer Model

Key vocabulary to preview:

Wordsplash

## Teaching Strategies:

Graphic Organizer:

Classifying / Categorizing

Instruction:

AP: Create a list of enemies of pollinators in Pennsylvania and explain their origin

Teacher Led Discussion

Assignment and/or Assessment:

Create a list of enemies of pollinators in Pennsylvania

## Summarizing Strategy:

The Important Thing

### Differentiation:

Modification will be made when necessary for different levels of learning

Days: 20

Subject(s): Vocations Concept: Enemies of Pollinators

5. Acquisition Lesson

Review / Revise:

**Reflection Questions** 

Resources and Materials:

Agricultural Science Textbook

Time (in days):

3

Days: 20

Subject(s): Vocations

8. Differentiating the Unit

What accommodations will you make in order to meet the varied interest, learning styles, and ability levels of all students?

### Differentiation Associated with the Unit:

### Differentiation Associated with Lessons and Activities:

#### Student Assessment 1: Written Test :

Modification will be made when necessary for different levels of learning

#### Student Assessment 2: Identification Guide :

Modification will be made when necessary for different levels of learning

### Student Assessment 3: Plant Variety :

Modification will be made when necessary for different levels of learning

#### Student Assessment 4: Enemies of Pollinators :

Modification will be made when necessary for different levels of learning

#### Launch Activity 1: Pollinators :

Modification will be made when necessary for different levels of learning

#### Acquisition Lesson 1::

### Which pollinators exist in Pennsylvania?

ANSWER: The following pollinators exist in Pennsylvania are: honeybees, wind, birds, moths, catepillars, ants, wasps, homets and humans

Modification will be made when necessary for different levels of learning

### Acquisition Lesson 2::

# Why does a variety of plants exist in Pennsylvania?

# ANSWER: Due to the growing conditions, growing zones and the types of pollinators that exist within Pennsylvania?

Modification will be made when necessary for different levels of learning

## Acquisition Lesson 3::

## Why do enemies of Pennsylvania pollinators exist?

Subject(s): Vocations

ANSWER: Enemies of pollinators exist in Pennsylvania due to the use of: pesticides, loss of habitat, loss of plant varieties, disease, humans and bacteria

Modification will be made when necessary for different levels of learning

Curriculum: CCSD CURRICULUM Course: Agricultural Science IV (4/14/14) Teacher/Team Name: Brown/Turner

Topic: Unit C-3-Pollinators Subject(s): Vocations

Subject(s): Vocations What resources and materials do you need for this unit, the lessons, and the activities?

#### Resources Associated with the Unit:

Resources Associated with Lessons and Activities: