

Ohio Standards Connections:

Science Grade four

Standard:

Life sciences:

Students demonstrate an understanding of how living systems function and how they interact with the physical environment. This includes an understanding of the cycling of matter and flow of energy in living systems.

An understanding of the characteristics, structure and function of cells, organisms and living systems will be developed. Students will also develop a deeper understanding of the principles of heredity, biological evolution and the diversity and interdependence of life. Students demonstrate an understanding of different historical perspectives, scientific approaches and emerging scientific issues associated with the life sciences.

Benchmark A:

By the end of the 3-5 program:

Differentiate between the life cycles of different plants and animals.

Indicators:

Life Sciences grade four

Heredity

1. Compare the life cycles of different plants including germination, maturity, reproduction and death.

5. Describe how organisms interact with one another in various ways (many plants depend on animals for carrying pollen or dispersing seeds.)

Social Studies Grade four

Standard

People in Societies

Students use knowledge of perspectives, practices and products of cultural, ethnic and social groups to analyze the impact of their commonality and diversity within local, national, regional and global settings.

Benchmark A:

By the end of the 3-5 program:

Compare practices and products of North American cultural groups.

Indicators:

People in societies grade four

Cultures 1. Describe the cultural practices and products of various groups who have settled in Ohio over time:

F. Recent immigrants from Africa, Asia and Latin America.

Physical Education for Middle Childhood

STANDARD:

High Expectations for a Physically Active Lifestyle

Accomplished physical education candidates maintain a stimulating, productive learning environment that holds all students to the highest expectations for adopting a physically active lifestyle.

Plan and implement lessons that promote student responsibility, decision-making, problem solving and cooperation in their own and others' learning and encourage the adoption of a physically active lifestyle. Create experiences that encourage exploration and movement curiosity; use instructional strategies that facilitate self-regulation (e.g., ask questions to stimulate error-correction, encourage the building of connections between new and prior knowledge, help students focus on relevant information); maximize opportunities for students to work in small groups and use cooperative learning strategies.

Lesson Summary:

Last week we traveled to the Zeller's farm for a field trip to explore the life of the migrant workers. While we were there we were able to observe and participate in harvesting the crops. We also talked with some of the workers and learn more about their culture and lifestyles. We have also read the book *Growing Season* which has helped us understand the life of a migrant worker. Today in class we will further examine the cultural practices and products of the migrant workers, and how harvesting pertains to their lifestyle. The things that we will learn today are very important at this age. They will help the students to have a better understanding of why people are different, how things grow, and also why it is important for people to exercise.

This lesson is also available at:

<http://portfolio.educ.kent.edu/funkk/epllessonplan.htm>

Estimated Duration:

50 minute lesson plan

Commentary:

This class will model Vygotsky's cognitive theory of development which comes from two main ideas: That academic development is understood only by the child's experiences, and that development depends on the symbols that cultures create (Slavin 2006). Students will do mostly group work. Students will work in groups to help each other learn better and the teacher will guide students to obtain teachable moments where they can learn best. This is an example of the zone of proximal development, which is important in Vygotsky's work (Slavin 2006). The ability for peers or adults to model a problem so that the student can come to understand them is called scaffolding. This is another one of Vygotsky's ideas that will be present in the classroom (D'Arripe-Longueville 2002). This will be demonstrated today by guiding students more at the beginning of the class and guiding them less and less by the end of class.

Pre-Assessment:

We will play a game of [HYPERLINK "epjeopardy.htm" \o "jeopardy game"jeopardy](#), (it is also saved as Jeopardy on the desktop) testing the skills that we already know about the migrant workers and their lifestyles. We have some knowledge from reading the book and taking our field trip. The students will be split up into groups of four for this activity, and the groups and jeopardy game are available below in the attachments portion of the lesson plan. The jeopardy game will be put on the overhead projector, and each group will have a buzzer. This task will take approximately fifteen minutes and will be the attention grabber of the lesson.

Scoring Guidelines:

The scoring guidelines for the pre-assessment will be participation points. There is a rubric for the scoring guidelines located below. Copies of these rubrics will be passed out at the beginning of class so that the students know exactly what to expect and what they will be graded on. Giving this to students ahead of time will be meaningful to the students to let them know what is meant by participation.

Post-Assessment:

Post assessment will be the grading of the in-class group worksheets, which are explained in the procedures below. The worksheets will be a good evaluation of the students individual and group work. The point value assigned to this worksheet will be motivation for the students to do well on the worksheet. The teacher will grade these worksheets after class.

Scoring Guidelines:

The scoring guidelines will be taken from the rubrics and answer sheets, which are posted below.

Instructional Procedures:

This part of the lesson will come directly after the jeopardy game.

The new material that will be presented includes the life cycle of a plant, the migration history of the people, and the physical activities the migrant workers can participate in to stay in shape.

Where the class will meet: The class will not meet in its regular classroom today, but in the computer lab.

The setup of the class: There will be five tables set up with four chairs at each table. The tables will be clearly marked by the color of the groups so that students will know exactly where to sit. The tables will be in the shape of a horseshoe, and have computers on them for the students to use. The teacher will have a table with supplies on it, located at the open end of the horseshoe. There will be an easel already set up with the diagram of the life cycle of a plant on it as an example for students to look at. The supplies will be listed below in the materials section.

The groups of students are listed below in the attachments. The students will already be broke into groups from the jeopardy game and will work on Internet questions from a worksheet, which you can view below. Each student is to have his or her own worksheet.

The subjects that are covered in the worksheets include life sciences, social studies, and physical education with the topic being the book *Growing Season*.

Teacher responsibility: This is when the teacher should pass out the worksheet (20 copies with the answer key on the bottom) in. The teacher will circulate the classroom helping students and guiding them to the answers.

Student responsibility: The students will work on the worksheets in groups that have been passed out by the teacher. Students are encouraged in this class to help others; therefore groups may help other groups while staying on task.

The answers and grading rubric for the internet questions are available below in the attachments portion of this lesson plan. The questions will be answered in class and should not take that long since the web address is provided for them.

Time: We will spend approximately 30 minutes on this portion of the lesson.

At the end of class we will allow five minutes time to close out of all websites, print worksheets, and log off the computers. This will give them a minute or two to pack their things before the bell rings.

Differentiated Instructional Support

Victoria is our student with the learning disability dysgraphia. Dysgraphia is a type of learning disability that affects individuals writing abilities. Dysgraphia is "...defined by Hamstra-Bletz and Blote (1993) as a disturbance or difficulty in the production of written language that is related to the mechanics of writing" (Rosenblum, Weiss, Parush 2004). Dysgraphia is a processing disorder that is also classified as a motor impairment as well as a specific learning disability. We will accommodate Victoria by working on the computer and having raised lines on her paper for her pencil to follow along with. This will help Victoria during this lesson.

Extension

An extension for the Lifecycles portion of the project is provided on the child friendly site on the lifecycle of plants. Students will go to HYPERLINK "<http://www.sln.org.uk/science/lifecycle/InternetLifeCycle.swf>" \o "Life Cycle of a Plant" [what is the lifecycle of a plant](#) and follow the instructions and complete the website.

For an extension of the culture of Mexican people including the ones portrayed in the *Growing Season* you can view a video on the HYPERLINK "<http://www7.nationalgeographic.com/ngm/0611/feature3/multimedia.html?fs=www3.nationalgeographic.com>" \o "National Geopgraphic Mexican Culture Video" [National Geographic website](#) that gives more information on their customs.

Students will have fun exploring the site's HYPERLINK "<http://www.pecentral.org/websites/kidsites.html>" \o "Action Land" "[Action land](#)" with games designed to motivate them to spend more time on the move and introduce them to more ways to be active.

Also for more sports information: HYPERLINK "<http://www.sikids.com>" \o "Sports Illustrated" [Sports Illustrated](#) has designed this site for intermediate/middle school age children interested in the latest information on the hottest sports. The

site includes news clips, puzzles, sports games, and comics.

Homework Options and Home Connections

The majority of this lesson is planned to be a co-operative group assignment that needs to be completed in class, and the students will have ample time to finish this project. However, there will be one homework assignment listed below in the attachments. This homework will require the students to be creative, by making up a game that will help keep the migrant workers healthy.

Interdisciplinary Connections

Interdisciplinary connections are seen throughout this lesson by integrating science, social studies and physical education. This is important for students to have these three areas integrated into one lesson because of their relevance in the everyday life of the migrant worker. Life sciences and the life cycle of a plant can be related to social studies in where plants and the people that harvest them come from, which can also be integrated into physical education because you have to have some type of physical fitness level to harvest plants.

Materials and Resources:

For teachers

1 easel, 1 diagram, 20 worksheets, 1 computer, 1 projector and screen, Microsoft office, 4 buzzers

For students

20 Computers, 20 pencils, internet access

Key Vocabulary

Key terms for this lesson plan have been covered before attending the field trip to the Zeller's farm. This was done before the field trip so that students would be familiar with the vocabulary used at the farm and we as a class would not waste time explaining vocabulary. This helps students to put a vocabulary word with an item it belongs to and helps them to better understand exactly what the vocabulary words mean. The students should have a good idea of what these words mean. The words include: culture, migrant worker, immigration, customs, germination, and pollination.

Technology Connections

Technology is already integrated into this lesson, however, for more information on the *Growing Season* book or any part of it please visit the *HYPERLINK "http://growingseason.net" \o "Growing Season Website" [Growing Season website](http://growingseason.net)*.

Available: *HYPERLINK "http://growingseason.net" <http://growingseason.net>*

Some child friendly links are located in the extension portion of this lesson.

Research Connections

All standards, benchmarks, and indicators are from the *HYPERLINK "http://www.ode.state.oh.us/GD/Templates/Pages/ODE/ODEPrimary.aspx?page=2&TopicRelationID=305" \o "Ohio Department of Education" [Ohio Department of Education](http://www.ode.state.oh.us/GD/Templates/Pages/ODE/ODEPrimary.aspx?page=2&TopicRelationID=305)*

Available at: *HYPERLINK "http://www.ode.state.oh.us/GD/Templates/Pages/ODE/ODEPrimary.aspx?page=2&TopicRelationID=305" <http://www.ode.state.oh.us/GD/Templates/Pages/ODE/ODEPrimary.aspx?page=2&TopicRelationID=305>*

Research for the people in societies, life sciences, and physical education portions of the lesson comes from the class textbook, the following websites, books, articles, and the book *Growing Season*.

The following websites are the ones used on the worksheet that is to be done in class.

HYPERLINK "http://www.florence.ars.usda.gov/kidsonly/element/plant.htm" <http://www.florence.ars.usda.gov/kidsonly/element/plant.htm>

HYPERLINK "http://www.pleasanton.k12.ca.us/amador/Creek/AP98/CaitDav/RESEARCH.HTML" <http://www.pleasanton.k12.ca.us/amador/Creek/AP98/CaitDav/RESEARCH.HTML>

HYPERLINK "http://arboretum.fullerton.edu/grow/primer/cycle.asp" <http://arboretum.fullerton.edu/grow/primer/cycle.asp>

The child friendly links come from the following websites:

HYPERLINK "http://www.sln.org.uk/science/lifecycle/InternetLifeCycle.swf" <http://www.sln.org.uk/science/lifecycle/InternetLifeCycle.swf>

HYPERLINK "http://www.pecentral.org/websites/kidsites.html" <http://www.pecentral.org/websites/kidsites.html>

HYPERLINK "http://www7.nationalgeographic.com/ngm/0611/feature3/multimedia.html?fs=www3.nationalgeographic.com" <http://www7.nationalgeographic.com/ngm/0611/feature3/multimedia.html?fs=www3.nationalgeographic.com>

HYPERLINK "http://www.sikids.com/" <http://www.sikids.com/>

This class will model Vygotsky's cognitive theory of development which comes from two main ideas: That academic development is understood only by the child's experiences, and that development depends on the symbols that cultures create (Slavin 2006). The research for the Vygotsky theory comes from the following:

D'Arripe-Longueville, F, Gernigon, C, Huet, M, Cadopi, M, & Winnykamen, F. (2002). Peer tutoring in a physical education setting: Influence of tutor skill level on novice learners' motivation and performance. *Journal of Teaching in Physical Education*. Volume 22 Issue 1, p105-123. Retrieved October 16, 2006, from Education Research Complete.

Slavin, R. (2006). *Educational psychology theory and practice*. Boston: Pearson Education.

The research for the learning disability comes from the following:

Dewey, D., Tupper, D. (2004). Neuropsychological manifestations. *Developmental Motor Disorders A Neuropsychological Perspective*. 330.

Mather, D. (July/ August 2003). Dyslexia and dysgraphia: More than written language difficulties in common. *Journal Of Learning Disabilities*, 36 (4) 307-317.

Rosenblum, S., Weiss, P., Parush, S. (2004). Handwriting evaluation for developmental dysgraphia: process versus product. *Reading and Writing: An Interdisciplinary Journal*, 17, 433-458.

Wren, C. (1983). Language learning disabilities. *Language Learning Disabilities: Diagnosis and Remediation*. 305-306.

Attachments

HYPERLINK "epjeopardy.htm" \o "Jeopardy" [Jeopardy questions and answers](#)

HYPERLINK "epjeopardyrubric.htm" \o "Jeopardy Rubric" [Pre- Assessment Scoring Guidelines Rubric](#)

HYPERLINK "epdiagram.bmp" \o "life cycle of a plant diagram" [Science diagram](#)

HYPERLINK "epworksheet.htm" \o "worksheet" [Worksheet](#)

HYPERLINK "epworksheetanswer.htm" \o "Worksheet answers" [Worksheet answers](#)

HYPERLINK "epworksheetrubric.htm" \o "Worksheet Rubric" [Worksheet rubric](#)

HYPERLINK "epgrouplist.htm" \o "group list" [Group list](#)

HYPERLINK "ephomework.htm" \o "Homework" [Homework](#)

Motivation

Students will be motivated throughout the lesson with immediate feedback regarding their progress. Students will also be motivated by the field trip. The experience will raise their awareness and provide motivation to want to learn more about the daily lives of migrant workers.

The Life of a Migrant Worker PAGE 8

4th Grade Social Studies, Science, and Physical Education

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