



Where Will Natural Resources Take You?

Middle School Food and Agricultural Literacy Curriculum

Precepts

- I. Professional Growth
 11. Make clear decisions in my professional life

National Standards

- CS.02.03.01.a. Explore various career interests/options.
- CS.02.03.03.a. Identify the skills required for various careers.
- NL-ENG.K-12.3 – Evaluation Strategies
- NL-ENG.K-12.4 – Communication Skills
- NNT.K-12.5 – Technology Research Tools

Student Learning Objectives

- As a result of this **unit** the students will...
- Explore the eight pathways of the Agriculture, Food and Natural Resources (AFNR) career clusters.
- As a result of this **lesson** the students will...
- Recognize five careers that are associated with natural resource systems.

Content Outline

- I. **Recognize five careers that are associated with natural resource systems.**
 - A. Visually represent the following jobs: fisherman, rancher/range manager, wildlife manager and logger.
 - B. Brainstorm specific terms that go along with the follow occupations:
 1. Cartographer
 2. Wildlife Manager
 3. Log Grader
 4. Range Technician
 5. Commercial Fisherman
 - C. Students select one **natural resources** career to further explore
 1. Form opinions from facts about careers
 2. Share findings

Time

Instruction time for this lesson: 45 minutes.

Resources

National FFA Organization. (2009). Career explorer. Retrieved from http://www.ffa.org/index.cfm?method=c_job_CareerSearch — National FFA Organization. (2009). LifeKnowledge Precepts and Signs of Success — States' Clusters Initiative. (2009). Agriculture, Food and Natural Resources Model. — Retrieved July 22, 2009, from States' Clusters Initiative Web site: <http://www.clusters.org/resources/ClusterDocuments/agdocuments/1AGModel.pdf>

Tools, Equipment, and Supplies

Writing surface
Markers
Computers with Internet access – one per student
MS.CAS.1.6.RUBRIC.A – one per student
MS.CAS.1.6.AS.A – one per student
MS.CAS.1.6.ASSESS.A – one per student

Key Terms

The following terms are presented in this lesson and appear in **bold italics**:

Natural resources

Interest Approach

Set up the *Party Host e-Moment®*. Take the four volunteers to a different room or just outside the door and explain to the volunteers that the host will invite them in to the party. Each of them is to act out one of the following characters without talking and the rest of the class guesses who they are. Use the following careers: fisherman, rancher/range manager, wildlife manager, and logger. Explain careers to volunteers if they are unfamiliar.

Welcome to class today. We have a great day planned so listen carefully and participate respectfully! We are going to have a party, and we need four volunteers and a host.

Choose volunteers and take students outside of the room and give them directions.

Thank you!



Where Will Natural Resources Take You?

Go back in the room and quickly explain to the rest of the class that we'll be having several guests and that it's their job is to identify who each guest is or what kind of career they are acting out. Open the door and invite your first guest in. Complete the moment and then debrief.

Thank you to all of our volunteers. Please give them a hand. What did each of those jobs they acted out have in common? Where do they work? Do they work in nature? Do they manage resources?

Elicit responses and lead them to answer that all the careers are in the **natural resources** area. Give an example of how each of them works in nature and how they manage their resources.

That is exactly right – they are all careers in the **natural resources** area. Our goal for today is to help all of us make clear decisions in our professional lives. What are some decisions we had to make today?

Wait for answers and let students know they are free to respond.

Good answers. We had to decide what to eat, what to wear, and where to sit in class. Isn't it amazing that we spend time thinking about these things every day but we seldom take time to think about our future?

Today we are going to focus in on career opportunities in the **natural resources** system and use the knowledge to make great decisions in our professional lives. With that being said, let's take the next several minutes to discover the possibilities in this area and create a flyer to show what we know.

Summary of Content and Teaching Strategies

Objective 1. As a result of this unit the student will recognize five careers that are associated with natural resource systems.

For this objective we are going to find out what the students already know about these careers from prior experiences. Then they are each going to select a career to do further research on and then in a three paragraph essay explain if they would like to pursue that career or not and why based on the facts they find.

On a blank sheet of paper we are going to brainstorm our ideas and then dump the information onto the writing surface. In just a moment I am going to say the name of a career and then each of us is going to write two things we know or at least think we know about the career. What questions are there?

The first career is a Cartographer.

Use guiding questions to help students out. Example – Do any of your parents have a GPS unit? What is it used for? What can we use if we do not have a GPS unit (a map)? How did that information get onto a map or into that GPS unit?

As we think about those questions, let's write everything we can think of on our papers.

Give enough time but keep it short enough to keep students on their toes.

The second career is a Wildlife Manager.

What is wildlife? What is a manager? Let's put the two together and write down what comes to mind.

Third is a Log Grader.

What comes to mind when we hear the word grades? So if translate our grades to grading logs write what comes to mind.

The fourth is a Range Technician.

What is range? What is range when discussing cattle? Does the range ever run out of grass for livestock to eat? What does a range technician do?

And, finally, is a Commercial Fisherman.

What is a fisherman? Do any of us fish? Do we fish enough to sell our catch? What does commercial mean?

Great job! Next we are going to dump the information onto the writing surface. Who will to come to the board and write the information from our classmates on the writing surface?

Select two volunteers and instruct them to come to the writing surface.



Thank you! Let's use the *Show What You Know e-Moment®* to get the information on the writing surface. When I say GO, quickly say one thing you wrote down about each of the careers. We will start with (choose a student) and continue around the room until our lists are exhausted. If you don't have anything new to add the second time around simply say pass. Let's start!

Great job! What an amazing amount of information we have collected from our experiences.

Allow students to select a career in the field of **Natural Resources** and do further exploration. Directions for finding the careers are on top of the activity sheet. Allow them to research and then write three paragraphs about why they would or would not pursue that career.

Now let's put on our research hats and dive deeper into a career in **Natural Resources**. In a moment when we hear the word GO, we are going to find a computer and select a career in **natural resources** to learn more about. You will have 10 minutes to research and 10 minutes to write three paragraphs about why you would or would not pursue this career.

What questions are there?

GO.

Let them know when 10 minutes have passed.

OK, we should be wrapping up our research and starting to work on our essay.

Review/Summary

Thanks for being such diligent workers! Please share your findings and opinions with a partner.

Thanks for sharing; please turn in your essay as you leave the classroom.

As you can see from our discussion and research, the **natural resources** career area has many exciting opportunities for us!

Lesson Number: MS.CAS.1.6

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Where Will Natural Resources Take You?

Application

Extended classroom activity:

Invite a professional in a **natural resources** career to be a guest speaker.

FFA activity:

Compete in range, soils, or other natural resource CDE's if allowed in your state. If not, utilize the CDE materials to seek further training in this area.

SAE activity:

Job shadow an employee in this area and record what they do on a daily basis.

Evaluation

MS.CAS.1.6.ASSESS.A

Answers to Evaluation

MS.CAS.1.6.RUBRIC.A



Essay Rubric

CATEGORY	(4) Excellent	(3) Good	(2) Almost	(1) Not Yet
Writing – Mechanics: Spelling Sentence Form Grammar	All of the writing is in complete sentences. Capitalization, punctuation and spelling are correct throughout the flyer.	Most of the writing is in complete sentences. Most of the capitalization, punctuation and spelling are correct throughout the flyer.	Half of the writing is in complete sentences. Some of the capitalization, punctuation and spelling are correct throughout the flyer.	Much of the writing is not in complete sentences. Much of the capitalization, punctuation and spelling are not correct throughout the flyer.
Technical writing	Students used their research and state facts to form their opinions.			Students did not use their research to form their opinions.
Length	Includes at least three full paragraphs.	Includes three partial paragraphs.	Includes two paragraphs.	Includes one paragraph or less.



Below is a list from the National FFA Career Explorer website. Follow these steps in the order they are listed.

1. Go to http://www.ffa.org/index.cfm?method=c_job.CareerSearch
2. Under Career Cluster Drop Down Menu
3. Natural Resource Systems
4. Click Search Career Explorer
5. The list of careers below will appear
6. Choose six pieces of information for two careers from the list below to use on your flyer.

Aquaculturist
Forest Firefighter
Log Grader
Natural Resources Scientist
Park Manager
Rangeland Scientist
Timber Manager
Water Resources Manager

Fire Warden
Forest Ranger
Logging Operations Inspector
Naturalist
Range Conservationist
Silviculturist
Trapper
Wildlife Manager



Name _____

List five careers that are associated with Natural Resources.

1. _____

2. _____

3. _____

4. _____

5. _____