



Care and Handling

Middle School Food and Agricultural Literacy Curriculum

Precepts

- G. Physical Growth
- G4. Set goals for long term health

National Standards

- AS.03.01.01.a. Explain methods of determining animal health and disorders.
- AS.03.01.02.a. Identify common diseases, parasites, and physiological disorders that affect animals.
- AS.06.01.02.a. Explain the implications of animal welfare and animal rights for animal agriculture.
- NL-ENG.K-12.4 – Communication Skills
- NL-ENG.K-12.12 – Applying Language Skills
- NS.5-8.3 – Life Science

Student Learning Objectives

- As a result of this **unit** the students will...
- Describe responsible animal welfare and care practices.
- As a result of this **lesson** the students will ...
- Define proper animal care and handling practices of each species of livestock and poultry.

Content Outline

- I. **Common handling and transportation practices**
 - A. Limit amount of stress on animals
 - B. Awareness of space, temperature, loading/unloading, and truck/trailer when working with animals
- II. **Common animal care practices**
 - A. **Preventive measures:** intended or used to prevent or hinder; acting as an obstacle; noting a drug or vaccine preventing disease
 - B. **Treatment measures:** the method of dealing with a given situation; management in the application of medicines, surgery, and practices

Time

Instruction time for this lesson: 45 minutes.

Resources

Gillespie, J.R. (2002). Modern livestock and poultry production (6th ed.). Albany, NY: Delmar Thomson Learning, Inc. — National FFA Organization. (2003). LifeKnowledge Precepts and Signs of Success. — National FFA Organization. (2009). LifeKnowledge Online. Retrieved August 4, 2009, from <http://agedlearning.org> — preventative. (n.d.) The American Heritage® dictionary of the English language (4th ed.). Retrieved August 4, 2009, from Dictionary.com website: <http://dictionary.reference.com/browse/preventative> treatment. (n.d.) The American Heritage® dictionary of the English language (4th ed.). Retrieved August 4, 2009, from Dictionary.com website: <http://dictionary.reference.com/browse/treatment>

Tools, Equipment, and Supplies

Overhead projector/transparencies
Scotch tape
Writing surface to record goals
MS.AS.5.1.AS.A – one per student
MS.AS.5.1.AS.B – one per student
MS.AS.5.1.TM.A – one per teacher
MS.AS.5.1.TM.B – one per teacher
MS.AS.5.1.TM.C – one for each pair of students (cut into cards)
MS.AS.5.1.ASSESS.A – one per student

Key Terms

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

Preventative measures

Treatment measures

Interest Approach

Have three different sized rectangles taped off on the floor of the classroom when students enter. One should be large enough for all the students to fit in fairly easily. Another should be a little crowded when all the students try to fit inside the rectangle. The third rectangle should be very crowded when the students try to fit into it. Do not explain to students why they are doing the activity because you want them to provide real thoughts and feelings. Upon completion ask students how they felt in the different rectangles. Use the comments from the students to lead into a thought that when we are crowded it causes an uncomfortable feeling and stress. Transition these thoughts into a comparison to handling and transporting animals. The rectangles represented either a trailer or building where animals might be kept.



Lesson Number MS.AS.5.1

Middle School Food and Agricultural Literacy Curriculum

Care and Handling

Welcome to class. The room may look a little different today. Notice there are three rectangles on the floor. When you hear GO, in an orderly and efficient manner everyone is to move (point to the largest rectangle) to the rectangle and make sure all your classmates are in the rectangle. What questions can I answer? GO.

Once all students are standing inside the largest rectangle provide them with the next challenge. The challenge is to all fit inside the middle-sized rectangle.

Good job, let's increase the level of challenge. Everyone must now fit inside this rectangle (point to the middle-sized rectangle). GO.

Once all students are standing inside the middle-sized rectangle provide them with the final challenge. The challenge is to all fit inside the smallest rectangle.

Nice, let's take the challenge to its highest level. Everyone must now fit inside this rectangle (point to the smallest rectangle). GO.

Once all students are standing inside the smallest rectangle or have at least tried several times to accomplish the challenge, ask students to think about how they felt during the challenges. Have students share their answers.

Good effort! Think about how you felt during these challenges and how those feelings may have changed during the process. As you head back to your seats prepare to share how you felt during the challenge.

Allow time for students to return to their seats.

Let's share how we felt when we were given the first challenge of all standing in the largest rectangle.

Allow students to share.

Thank you. Now share our feelings about the second challenge.

Allow students to share.

Interesting! Now share how you felt during the final challenge when all of you tried to fit in the smallest rectangle.

Allow students to share leading them to terms such as uncomfortable or stressed.

You know how you felt and terms such as "crowded," "uncomfortable," and "stressful" were mentioned.

Now imagine if animals are being moved from one place to another in a small space like that. It would probably cause them stress and not be very pleasant. Just as we want to be treated well, our animals do as well. Learning about handling, transporting, and care of agricultural animals is as important as caring for ourselves and others.

Summary of Content and Teaching Strategies

Objective 1. Define proper animal care and handling practices of each species of livestock and poultry.

The goal of an agricultural animal producer is to take good care of their animals and raise healthy animals. Any time animals need to be handled and moved it is essential to attempt to keep the level of stress placed on the animal to a minimum.

Students will fill in the blanks on **MS.AS.5.1.AS.A** using **MS.AS.5.1.TM.A**. Reveal only the section from **MS.AS.5.1.TM.A** you are discussing. Distribute **MS.AS.5.1.AS.A**.

Just as you may have felt a little stress in the rectangle challenge so do animals any time they must be handled and moved. Limiting the amount of stress placed on the animal is the first priority.

On the activity sheet I passed out, record the missing information beginning with the main focus you just heard.

Begin the next section by reminding students that a goal of effective animal care is to raise healthy animals. This process includes both preventive measures and treatment measures. Using a Me-You-Us e-Moment®, begin by having students think about three goals that they have for a healthy lifestyle. Have students record their goals on **MS.AS.5.1.AS.B**. Use those to lead into discussing prevention measures, treatment measures, and how those measures relate to raising animals.

Distribute **MS.AS.5.1.AS.B**



Lesson Number MS.AS.5.1

Middle School Food and Agricultural Literacy Curriculum

Care and Handling

Agricultural producers that raise animals do everything they can to raise animals that are healthy. Healthy animals are the goal, just like we have the goal of being healthy individuals. Think about three goals to help you to be a healthy individual in the future. Take three minutes and write those three goals on this activity sheet (hold up **MS.AS.5.1.AS.B**). What questions can I answer? Begin writing your goals.

Circulate around the room and answer questions as they arise. Tell students when they have two minutes left, remind them they will be sharing their goals, one minute left, and remind them they will need to be able to explain how they might go about accomplishing the goals.

Your time is complete. We now have our own goals that we have written and have heard about a goal from a neighbor. Let's take this one step further. Animal producers set similar goals in an attempt to raise healthy animals. They will put together **preventative** goals in an attempt to keep animals healthy.

Many of us can remember getting shots or vaccinations as children in order to keep us from getting certain diseases. Animal producers do the same for their animals. On your activity sheet record the following definitions.

Display **MS.AS.5.1.TM.B** to allow students to record the two definitions.

As we all know sometimes we do get sick even if we have used **preventative measures**. When we do get sick we often use **treatment measures** such as going to the doctor or taking medicine. Animal producers encounter the same challenges with animals and have to use **treatment measures**. A veterinarian might be used and medications might be prescribed.

Use the scenario cards that can be found on **MS.AS.5.1.TM.C** to have students work with their neighbor to categorize a situation as preventative or treatment. Preventative Measures described: Blackleg, Rhinitis, Newcastle Disease, and Tetanus. Treatment Measures described: Pinkeye, Scours, Avian Influenza, and Foot Rot.

You are about to receive a set of scenario cards (hold up scenario cards). When I say SORT, your task is to determine if the scenario on the card represents a **preventative measure** or a **treatment measure** in animal production. You will have three minutes to complete the task.

When you are done you should have four cards in the **preventative** category and four cards in the **treatment** category. You will work with the neighbor you shared your healthy lifestyle goal with earlier in the class session. What questions to you have? (Hand out scenario cards.) SORT!

Move throughout the room to answer any questions that may arise. Benchmark the time at two minutes and one minute for the students. When students have completed their task, go through the scenarios to make sure students have correctly identified the measures.

Review/Summary

Utilize a *Mother Goose e-Moment* to have the students review the content from the day. Begin by having students brainstorm common nursery rhymes. Record those on a writing surface where all students can see the nursery rhymes. Then have students work with their teammate from before to re-write the words of the nursery rhyme using the newly learned content. Students should base their rhyme on handling, preventative measures, or treatment measures.

We have all heard numerous nursery rhymes during our lifetimes. What are some of the nursery rhymes that you have heard?

Write the names of the nursery rhymes mentioned on a writing surface for everyone to see.

This is quite a list you will have to pick from.

When you hear the word AUTHOR, you are to pick one of the nursery rhymes listed and change the words. Change the words to incorporate the terms you have learned today. Your newly written rhyme should be based on handling, **preventative measures**, or **treatment measures**. You will have eight minutes to work with your teammate from before to create this new nursery rhyme. What questions do you have? AUTHOR.

Allow students to share their new nursery rhymes with the entire class or in small groups. Close by thanking students for their engagement during the session.

Thank you for sharing your newly developed nursery rhymes based on your newly developed knowledge with respect to animal handling and care. Give yourselves a hand.

Lead applause.



Lesson Number MS.AS.5.1

Middle School Food and Agricultural Literacy Curriculum

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Thank you for your engagement and keeping your work hat on throughout the session today and remember that one of the main goals for any animal producer is to raise healthy animals.

Application

Extended classroom activity:

Have students research the recommended transportation guidelines for different livestock and poultry species. Use the information to put together a comparison and contrasting poster or handout that could be used as a reference for individuals transporting animals.

FFA activity:

Have students work with a veterinarian to set up and publicize a public discussion meeting one evening. At the meeting have the veterinarian present information to the public about preventative measures and treatment measures people can implement to aid in the raising of healthy animals.

SAE activity:

Have students interview a veterinarian to learn about what they do within their career. Ask questions about their responsibilities as a veterinarian and what they tell clients about handling, transporting, and care of animals.

Evaluation

MS.AS.5.1.ASSESS.A.

Answers to Evaluation

1. Space, temperature, loading/unloading, and truck/trailer (three of the four should be mentioned to receive credit).
2. A
3. A
4. B
5. A
6. B
7. B
8. B
9. A



Handling and Transportation Practices of Animals

Name _____

A. Main Focus:

1. Space – always follow the accepted _____ for proper space allowance
_____; never over _____

2. Temperature – attempt to protect animals from _____ in temperature; limit handling and transportation in _____

3. Loading/Unloading – attempt to do this as _____ and _____ as possible;
limit use of whips and electric prods because they may cause _____
to the animal

4. Trucks/Trailers – should be divided into _____; _____ and well _____
_____; avoid sudden _____ and _____



Three goals that I have toward a healthy lifestyle in the future are...

Management Practices
for Healthy Animals

Preventative Measures –

Treatment Measures –



Handling and Transportation Practices of Animals

A. Main Focus: Limit the amount of stress placed on the animal.

1. **Space** – always follow the accepted recommendations for proper space allowance per animal; never overpopulate
2. **Temperature** – attempt to protect animals from changes in temperature; limit handling and transportation in extreme weather conditions
3. **Loading/Unloading** – attempt to do this as calmly and quietly as possible; limit use of whips and electric prods because they may cause unnecessary stress to the animal
4. **Trucks/Trailers** – should be divided into compartments; clean and well ventilated; avoid sudden starts and stops



Preventative Measures:

intended or used to prevent or hinder; acting as an obstacle; noting a drug or vaccine preventing disease

Treatment Measures :

the method of dealing with a given situation; management in the application of medicines, surgery, and practices



Scenario Cards – Cut on Lines to Separate

Blackleg is a disease caused by bacteria that causes lameness, high fever, and can be fatal to cattle. Calves should be vaccinated when young and again at weaning for the disease.

Pinkeye is a disease carried by insects that affects the eyes of cattle. Eyes become pink, clouded, and blindness may occur. Infected cattle should be isolated in a dark place and antibiotics and sulfa drugs should be applied.

Rhinitis is a disease caused by bacteria that affects the nasal passages of swine. Vaccinating sows helps reduce the occurrence of the disease in piglets but does not eliminate the disease.

Scours are a disease caused by bacteria that leads to dangerous diarrhea in swine or cattle. Antibiotic or sulfa drugs should be administered within 24 hours of the disease being identified.

Newcastle disease is caused by viruses that lead to breathing problems, tremors, and paralysis in poultry. Proper sanitation and vaccinations should be given to young birds.

Avian influenza is caused by viruses. Poultry cough, sneeze, and lose weight due to the disease. Antibiotics can be used to reduce the disease and potential death loss once infected birds are found.

Tetanus is caused by bacteria found in the soil and can affect sheep, cattle or goats. Infected animals become limited in their ability to walk, inability to eat, and potentially die. Producers should make sure equipment is sterilized before using with animals and vaccinations are often recommended.

Foot rot affects sheep, goats and cattle and is caused by two bacteria. When animals are infected they become lame and potentially lose part of the hoof. Animals with foot rot should be isolated, hoof trimmed, and washed in a footbath solution.



Name: _____

Directions: Answer the following question to the best of your ability.

1. When handling and transporting animals what are three areas to be concerned about to lessen the stress level on the animals (four were discussed in class)? _____

Directions: Choose "A" or "B" that best identifies the statement and write the letter in the blank.

A. Preventative Measure

B. Treatment Measure

- _____ 2. Newcastle disease is caused by viruses that lead to breathing problems, tremors, and paralysis in poultry. Proper sanitation and vaccinations should be given to young birds.
- _____ 3. Rhinitis is a disease caused by bacteria that affects the nasal passages of swine. Vaccinating sows helps reduce the occurrence of the disease in piglets but does not eliminate the disease.
- _____ 4. Pinkeye is a disease carried by insects that affects the eyes of cattle. Eyes become pink, clouded, and blindness may occur. Infected cattle should be isolated in a dark place and antibiotics and sulfa drugs should be applied.
- _____ 5. Blackleg is a disease caused by bacteria that causes lameness, high fever, and can be fatal to cattle. Calves should be vaccinated when young and again at weaning for the disease.
- _____ 6. Avian influenza is caused by viruses. Poultry cough, sneeze, and lose weight due to the disease. Antibiotics can be used to reduce the disease and potential death loss once infected birds are found.
- _____ 7. Foot rot affects sheep, goats, and cattle and is caused by two bacteria. When animals are infected they become lame and potentially lose part of the hoof. Animals with foot rot should be isolated, hoof trimmed, and washed in a footbath solution.
- _____ 8. Scours are a disease caused by bacteria that leads to dangerous diarrhea in swine or cattle. Antibiotic or sulfa drugs should be administered within 24 hours of the disease being identified.
- _____ 9. Tetanus is caused by bacteria found in the soil and can affect sheep, cattle, or goats. Infected animals become limited in their ability to walk, inability to eat, and potentially die. Producers should make sure equipment is sterilized before using with animals and vaccinations are often recommended.