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An animal is a living thing that can be grouped into one of five classes according to its body structure and characteristics. We will be studying the vertebrate animals. They originate from the kingdom *Animalia*.

Can you name the five classes of animals?

- 
- 
- 
- 
- 

Another way to categorize wild animals is:

- Extinct
- Endangered or Threatened

These terms deal with the disappearance or threatened disappearance of a particular species.

Domestic animals which are used for transportation, food and work are production animals. Those animals that are used for protection and recreation are companion animals.

Since animals are living things, they can grow, reproduce, and may or may not be able to move on their own. Animals, because they are living, die. This is due to old age, disease, injury or they're harvested for food.

Animals are further categorized as either wild or domestic. Wild animals are animals that are not tame. All animal species started off as wild.
WHAT AM I?

Make an animal mobile!

You will need:
- hanger
- animal magazine
- scissors
- string or yarn
- paste/glue
- construction paper
- markers

What you do:

- Decide if you are going to make a single class mobile or a mixed class mobile.
- Find and cut out pictures of animals which belong in the class. (ex. if a mammal mobile, then only mammals should be cut out)
- Cut out construction paper to fit on the back of the animal pictures.
- Cut pieces of string/yarn in different lengths.
- Glue or paste the string/yarn in between the construction paper and the back of the pictures.
- Write the name of the animal, its class and whether it is wild or domestic on the construction paper.
- Tie the pictures with the string/yarn to the hanger in different locations.

Hang your mobile in your room!

Page 2
The Animal World

WORD LIST:

Amphibians  Birds  Fish  Reptiles
Animalia  Classes  Lesson  Water
Biology  Environment  Mammals

ACROSS

2. ________ are usually found in water and breathe through gills when they are young and usually live on land when they are adults.

5. All living things require food, ________, light and air to live.

6. ________ are cold-blooded with scales or cornified skin.

8. ________ is the study of all living things.

9. ________ produce milk to feed their young.

10. We are learning about animals in this ________.

11. Gills allow ________ to breathe underwater.

DOWN

1. Living things have a definite relationship with their surroundings or ________________.

3. Feathers cover ________.

4. Animals come from the classification Kingdom ________.

7. Animals are grouped into ________.
Are WE A Set?

Fill in your own puzzle using an animal you are unfamiliar with. Remember: identify the names of the male, female, castrated, and offspring for the animal you have chosen.

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<th>ANIMAL NAME:</th>
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Animals have made many contributions to the lives of humans. The most obvious is that of food.

Can you name some food products?

Meat is the major food product, but along with providing humans with food, animals also provide us with fiber. Without animals we would not have clothing like leather, wool, mohair, down, and fur. In producing meat, we also get valuable by-products which are produced during the making of something else. By-products include things such as: crayons, makeup, marshmallows, fertilizer, candles, cleansers, and paint.

Animals serve humans in ways beyond just food and fiber. They are still a form of transportation in many countries. In the United States, however, riding animals such as horses is done primarily for recreation. Many animals, like seeing eye dogs, provide a tremendous service as they are the eyes of their owner. At the same time, they are also great companions!

What kinds of animals are reused for companionship?

Animals are also used in law enforcement, in therapy for the mentally and physically healing, and in medical research for things like insulin and heart transplant/valve replacement surgery. Just think what our lives would be like without animals!

Can you name some other items that are made from animal products?
There's A Sheep in My Closet!! "WEAR" Is It?

List clothing products or accessories that you find in your closet or around your home!

<table>
<thead>
<tr>
<th>CLOTHING</th>
<th>SPORTING GOODS</th>
<th>ACCESSORIES</th>
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<th>FURNITURE</th>
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Page 6
More Than MEAT

Animals produce more than just meat, milk, eggs, and wool! Search for some products that contain animal by-products from the word list below!

Butter  Buttons  Candles  Cosmetics  Crayons  
Football  Glass  Gloves  Glue  Gum  
Ice Cream  Leather  Matches  Paints  Perfumes  
Pet food  Records  Soaps  Wool  Yogurt
Special Critters

Identify the special critters below and what their specialty is.

[Diagram of a dog]

[Diagram of a police officer with a dog]

[Diagram of a person and a dog]

[Diagram of a dog and a horse]

[Diagram of a dog and a wheelchair]

Page 8
Where Do I Live?

Whether your animal is a production or a companion animal, taking good care of it is essential. Both types of animals need to be protected from predators and the environment. They also need to be guarded from disease and illness.

Caring for animals involves knowing your animal. It is important to know how your specific animal should be fed, handled, transported and groomed. Following a planned healthcare program will also be helpful. Remember that each animal is different even within the same species. Knowing your animal and its behaviors could be one of the most important assets in animal care!

Draw a picture of the area where your animal or a friend's animal lives. The shelter or equipment that is needed to care for the animal should be included.
What's That For?

Identify these grooming tools used for animals and the reasons for using them.

1. [Diagram of a hair dryer]
   - 
   - 
   - 

2. [Diagram of soap bottle]
   - 
   - 
   - 

3. [Diagram of a comb]
   - 
   - 
   - 

4. [Diagram of scissors]
   - 
   - 
   - 

5. [Diagram of a spray bottle]
   - 
   - 
   - 

6. [Diagram of a tube]
   - 
   - 
   - 

Page 10
What Do You Know About Good Animal Care?

Choose an animal. Answer the questions in the spaces below.

**Score Card**

<table>
<thead>
<tr>
<th>Category</th>
<th>How often should you do?</th>
<th>How should you do this?</th>
<th>What products/equipment do you use?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nutrition/Feeding</td>
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<tr>
<td>Health/Illness</td>
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<tr>
<td>Grooming/Exercising</td>
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<td>Transportation/Moving</td>
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<tr>
<td>Handling</td>
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</tbody>
</table>
How Are You?

Draw a picture of an animal in each of the boxes below representing the "feeling" of each.

Scared

Excited

Angry

Content
Healthy animals are those that are free from disease and illness. A disease is a condition of ill health, or malfunction of organs or an organ system.

An illness is caused by a virus or bacteria that makes the animal not feel good.

Can you name any animal illnesses?

________________________

________________________

________________________

The ability to recognize normal characteristics in animals will help you identify when an animal is ill. Some of the characteristics include: body temperature where "normal" is different for each species, respiration rate which is the process of taking in air, pulse rate which is the pressure surge in an artery caused by the blood being pumped through the artery by the heart, physical behavior and appearance.

Good nutrition is essential for a healthy animal. If an animal does become sick, a veterinarian (animal doctor) should be called. Veterinarians have many years of training and education like a human doctor. However, sometimes we are able to care for our animals ourselves. It's important to know when to call a veterinarian and when we can do it ourselves.
## Scrambled Parts

Unscramble the body system names below and explain how they function in the body.

<table>
<thead>
<tr>
<th>SYSTEM</th>
<th>FUNCTION</th>
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<tbody>
<tr>
<td>VGETDIESI</td>
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<td>AYTERIPSROR</td>
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<td>EIUMMN</td>
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<td>LRCUROIYATC</td>
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<td>RCATENL VNEOSUR</td>
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<td>CTREVEPORDUI</td>
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<td>CXRETERYO</td>
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Page 14
**Veterinarian QUIZ**

You have learned that veterinarians are animal doctors. Let's see how many of these answers you know. If you don't know, make an educated guess. Good Luck!

<table>
<thead>
<tr>
<th></th>
<th>True</th>
<th>False</th>
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</thead>
<tbody>
<tr>
<td>1.</td>
<td>Veterinarians treat animals like horses, dogs, cattle, parrots, whales, snakes, lions, elephants and alligators.</td>
<td></td>
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<tr>
<td>2.</td>
<td>Humans cannot catch diseases from animals.</td>
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<tr>
<td>3.</td>
<td>Animals can get diseases which affect the respiratory, reproductive, digestive, circulatory, immune and excretory systems.</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Veterinarians are preventative and treatment doctors.</td>
<td></td>
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<tr>
<td>5.</td>
<td>Veterinarians make house calls.</td>
<td></td>
</tr>
</tbody>
</table>

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**ANSWERS**

1. True
2. False
3. True
4. True
5. True

---

*Note: The answers are based on the statements provided in the quiz.*
Time For SHOTS!

Materials: 1 Orange
1 Syringe with needle and protector cover

Intramuscular

Skin

Subcutaneous

"Meat" (pulp)

Remember to review the safety rules BEFORE "injecting" your orange. Safety is always important and comes first.

Intramuscular - needle should go into "meat" (pulp) of the orange which represents the muscle.

Subcutaneous - needle should go into the skin but not into the "meat" of the orange.
Although all animals require good nutrition, not all animals require the same nutrition. There are different types of digestive systems: ruminant and monogastric. Ruminant animals possess a stomach with four compartments. They are: **rumen** - which has microorganisms that break down high-fiber foods; **reticulum** - which breaks up food into smaller pieces and adds water and salivary to help digestion; **omasum** - which grinds food and removes water from food; and **abomasum** - which produces digestive juices and works like our stomach in digestion. Animals like cattle, sheep, goats and deer are ruminants. Non-ruminant animals have only one compartment and are called monogastrics.

Can you name a few non-ruminant animals?

There are different feed types made for specific animal types. Roughages are high in fiber and low in energy, which are good for ruminant animals. Concentrates are low in fiber and high in energy, which are good for non-ruminants. All of these factors must be taken into consideration when dealing with animal nutrition.

Animals require the same nutrient components of a good diet that you do. What is a nutrient?

The important nutrients include protein, carbohydrates, fats, vitamins, minerals, and water. Which is the most important?

You're learning about good animal nutrition!
You Are What You Eat!!

Humans are omnivores. That means we eat plants and animals. Let's be omnivores and make a tacosalad!

TACO SALAD

INGREDIENTS:
1 pound hamburger
1 package taco seasoning
1 medium head lettuce, torn
1 small can kidney beans
1 small onion, chopped
4 medium tomatoes, sliced
8 ounces cheddar cheese, grated
1 bag tortillachips

DRESSING:
16 ounces ThousandIsland dressing
1 tablespoon taco seasoning
2/3 cup sugar
1 tablespoon Mexican salsa

DIRECTIONS:
Brown hamburger; add taco seasoning, reserving 1 tablespoon for dressing. In a large bowl, layer lettuce, meat mixture, kidney beans, onion, tomatoes, and cheese. Combine all ingredients for dressing. (Dressing is best made the day before.) Add chips and dressing just before serving.
Circle parts of the label listed below: Use different colored markers for each part to color code the label!

**Circle These:**

**Color**

- [ ] Name of Product
- [ ] Name and Address of Manufacturer
- [ ] Net weight
- [ ] Guaranteed Analysis or Nutritional Facts
- [ ] Ingredients
- [ ] Warning Statements/Handling Instructions
- [ ] Feeding Instructions
Supper Sampler!

A ROUGHAGE is a feedstuff that is high in fiber and low in energy.

A CONCENTRATE is lower in fiber and higher in energy.

YOU WILL NEED:

* glue/paste
* tape
* marker
* yarn (green and yellow)
* scissors
* feed samples

WHAT YOU DO:

✓ Take a small sample from a few (6 or 7) feedstuffs.
✓ Glue/paste or tape these samples in the spaces below.
✓ Write the name of each below the sample.
✓ Cut pieces of green yarn to connect each of the roughages and pieces of yellow yarn to connect each of the concentrates.
Animal welfare should not be confused with animal rights. Farmers and ranchers promote animal welfare. They advocate humane treatment of all animals, generally approve of animal production to provide food, fiber and research information to improve health of humans and other animals, as well as, for the purpose of companionship and/or recreation.

Food, water, shelter, and healthcare should be provided to be a responsible caretaker. Domestic animals cannot survive without these needs being provided. It is also important to know that several management practices are done for the safety and welfare of the animal, as well as, the caretaker.

Can you name a few of these practices and indicate why they are important?

________________________________________________________________________________________

________________________________________________________________________________________

________________________________________________________________________________________

________________________________________________________________________________________

When raising animals you should know the necessary management practices and why they are performed so you can answer any questions about what you do. This will help alleviate activists' concerns about the well treatment of animals.

It is important to remember that most agriculturalists depend upon animals for their livelihood and if the animals are not treated humanely they will not produce. If they do not produce, they do not make money. So it is in the farmer or rancher's best interest to take care of their animals.
Humane treatment means that something is treated with kindness, mercy or compassion. Write a sentence about the humane treatment and welfare of animals beginning with each letter in the word HUMANE!
Through Animal Eyes

Finish the story

This morning, when I woke up, I was a...
Management Medley

Identify and describe one management technique necessary for each animal shown below.
Now that you know production animals are grown to produce food, fiber, and other by-products, it is important to know how. The way it gets from farm to table is known as processing. Each product has its own steps. For instance, in beef, the animal has to be inspected and humanely slaughtered and then, inspected again. After that, the carcass is cut down into wholesale cuts and then into retail cuts. This process happens for all meat species, however, not all animals or processed products have to be slaughtered to harvest their products. It's important to remember that this explanation was simplified but you will learn more about this involved process in this lesson.

Can you name a few animal products and the animals they come from?

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________

Milk, wool and eggs are examples of products where the animal does not have to be harvested to obtain the product. The animal can regenerate their products regularly. Yet the processing and inspection steps are just as intense. Inspection is done on all animal products to ensure safety and wholesomeness. Also, safe food handling labels have been put on food products to help consumers prevent any illness from bacterial contamination.
Farm To Table

Using arrows, trace the steps below from farm to table and describe what each contributes to the production and processing of our food.
“COWmercial Outline

The commercial will last 60 seconds

1. Focus topic:

2. Plan your message. What is the main message (onesentence)?

3. Writedown a simplified script of what you and group members will say. (on back)

4. Decide who will speak. There can be one voice or several, talking, singing a song, reciting a poem, having a conversation, sound effects, etc.

5. Give it a dry run. Try to time it to last about a minute. Edit your script if it lasts longer; add words or speak slower if it is too short.

6. Practice several times. Be sure to speak clearly. There is no need to rush.

7. Record the announcements, allowing a pause between each one. Begin each with, “This is ____________ (name) of the _____________ (4-H club name) for animal by-products.”

Page 27
Butter UP!

Let’s make butter!

YOU WILL NEED:

- An empty, clean jar with a lid (about the size of a baby food jar)
- Whipping cream
- Crackers
- Butter knife

WHAT YOU DO:

✓ Fill the jar half full with whipping cream and replace lid.
✓ Shake the jar for about 30 minutes until a solid substance forms.
✓ Pour off liquid portion.
✓ Spread your butter on crackers and...

ENJOY!!!

This is just one way raw materials are made into a finished product even though it is more efficient to produce in larger quantities.
Animals are raised all over the United States. It is easier and more cost effective to raise some animals in certain areas and not in others. Many factors contribute to the areas where animals are raised.

Can you name a few factors?

An example would be the availability of grain to grow out cattle before sending to market. This is better accomplished in the midwest where they have more grain production. Think about the weather in Florida, land prices, and access to grain. It's difficult to feed out animals for market.

What do you do when you are ready to sell your animal? Of course you sell or market your product to people who want it or buy products.
It's A MARKET Out There

There are many different products that are reproduced by farmers and purchased by the public. Grocery stores do NOT make all of the products that they sell. Without farmers, grocery stores wouldn't have anything to sell, and you wouldn't have anything to buy or eat!

WHAT YOU DO:

- Watch television for about 1 hour.
- List the commercials that are related to animals, animal products, products for animals, and agricultural products in general.
- Mark the commercial you liked the most and the one you liked the least below:

Favorite

Least Favorite
Where In The COUNTRY?

Some states are very good producers of animals. Let's see if you can name the states!

YOU NEED:
- Several different markers
- References which include animal production information

WHAT YOU DO:

✓ Go around your group and see if you can identify all the states from their abbreviations below.

✓ Make a key at the bottom of the page showing what each color will represent. (ex. green = sheep) Identify cattle, hogs, poultry, dairy, rabbits, horses and sheep.

✓ Make a dot in each state with the proper color. (ex. For all states producing sheep, make a green dot)
<table>
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<th>Date</th>
<th>Price</th>
<th>Comments</th>
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On which of these dates are you going to sell your animal?

Why?
Everything done in agriculture affects the environment in some way. Farmers know they must take care of their land if they are to continue using it. Farming is very important to this country. Agriculture provides the food that we eat and many jobs for people. Farmers also take care of their animals. Without proper care to both, the environment could be affected. If mismanaged, agriculture could have a negative affect on the environment. Many concerns such as overgrazing, fertilizers and pesticides in rivers, and waste in the water supply are ones farmers are trying to deal with. But we need to remember that animals take feedstuffs like grass, which is not valuable to people, for food and turning into usable energy sources or food for people.

Many animals rely on the environment for protection. Some are capable of camouflage which helps them hide from predators. Agriculturalists of all kinds recognize the importance of well-being of the environment and are managing it to the best of their ability.

As the world continues to evolve, increased population and technology causes agriculturalists to deal with changes in the industry. These changes could be policies, laws and regulations. All of these are meant to help the consumer. Sometimes, these regulations make it difficult for the producer. We must work together and try to understand one another to make it work in today's world.
A Letter Writing Checklist

Before sending your letter, take a few minutes to review this checklist and be sure all the items are included in your letter.

3 Is your name, address and phone number included? If an official wants to contact you or reply to your letter, this information is essential.

3 Is the address correct? Did you address the official properly and politely?

3 Did you begin with a clear, concise statement of the issue or problem? If the issue involves legislation, identify the bill number or describe it as best as you can. If you have a problem, state it in a factual, unemotional manner.

3 Did you explain your reasons for writing? Discuss the personal impact of the issue or legislation. How will it affect you, your neighborhood, your environment?

3 Did you include facts and figures that support your opinion? Get information from the library or reliable publications.

3 Did you express your own views? What happened to cause you to write the letter? Did you read that the local landfill is leaking and polluting the groundwater? Do you think the government should take a more active role in promoting recycling? Personal experiences show the depth and sincerity of your concern.

3 Did you ask for a response? Tell the official you are interested in what a action he or she will take in response to your letter. Ask what else you can do to support (or oppose) this legislation or to resolve the problem you identified. If the response isn’t what you wanted, write again.

3 Did you end your letter in a constructive and understanding way? Do NOT use threats or imply that your will do negative things if the issue is not resolved in your favor.

3 Were you brief? Does the letter address only the single issue? Long, complicated letters seldom prompt action.
Are You In There?

Make a terrarium for a chameleon or a tree frog.

YOU WILL NEED:

- An aquarium with a lid which allows air into the aquarium.
- Dirt
- Plants, rocks, pieces of wood
- Water
- Chameleon or tree frog
- Insects to be used as food for your new pet

WHAT YOU DO:

3 Place some dirt covering 3/4 of the aquarium floor (about 3 inches deep)

3 Put water in the other side of the aquarium.

3 Place plants, rocks, and pieces of wood in the aquarium in an attractive way.

3 Put the animal you selected as your new pet in the aquarium.

3 Place insects in the aquarium for the chameleon or tree frog to eat.

3 Watch how the animal changes with its environment or when the light changes.

3 Remember to release the chameleon or tree frog back into its natural environment when you have finished observing it.
Food C-H-A-I-N!!

Fill in the circles to design your own foodchain.
How Game Were You in THE WORLD OF ANIMALS?

List the activities completed or things you learned from participating in this project.

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<th>How Animals Serve Humans</th>
<th>Animal Welfare</th>
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<th>Marketing Animals</th>
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| Animals And The Environment                       |                   |
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