

Teacher Package Science & Technology

Grades 1-8

Raising Farm Animals

INCLUDED IN THIS PACKAGE:

- **Before your visit:**
 - Lesson Plan and Classroom Activity provided by AgScape
 - Activities Provided by 4H Ontario
- **At The Fair:**
 - Animal Needs Assignment & Game

Presented with:



schoolgroups@royalfair.org



Raising Farm Animals



Lesson Plan

Grade 1-8

About This Lesson Plan

Curriculum connections updated in July 2019.

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Adapted from What Does it Take to Raise Farm Animals?
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LESSON PLAN:

Raising Farm Animals



Grades 1-8

ABOUT THIS LESSON

Students will be able to investigate and describe the needs and characteristics of various farm animals. Students will be able to identify the impact that humans and the environment have on animals.

MATERIALS NEEDED

- Ziploc Bags
- Tape
- Animal pictures and recipes
- Glue
- Blank white paper (8.5x11)
- Computer/projector/screen
- Crayons
- Scissors
- Animal needs and feed
 - Cotton balls (air)
 - Strips of blue paper (clean water)
 - Popsicle sticks (shelter)
 - Strips of yellow paper (light and electricity)
 - Red cross (health/medical/veterinarian services)
 - Feed (corn, soybeans, wheat, hay)

CURRICULUM EXPECTATIONS

SCIENCE AND TECHNOLOGY

Understandings Life Systems: Needs and Characteristics of Living Things

By the end of Grade 1, students will:

- 1.2 describe changes or problems that could result from the loss of some kinds of living things that are part of everyday life;
- 2.2 investigate and compare the basic needs of humans and other living things, including the need for air, water, food, warmth, and space, using a variety of methods and resources;
- 2.4 investigate and compare the basic needs of humans and other living things, including the need for air, water, food, warmth, and space, using a variety of methods and resources;
- 3.6 identify what living things provide for other living things.

Understanding Life Systems: Growth and Changes in Animals

By the end of Grade 2, students will:

- 1.2. identify positive and negative impacts of various human activities on animals and animal habitats.
Form an opinion on one of them and suggest ways in which the impact can be minimized or enhanced.

Understanding Life Systems: Growth and Changes in Plants

By the end of Grade 3, students will:

- 3.7. describe the different ways in which plants are grown for food or explain the advantages and disadvantages of locally grown and organically produced food, including environmental benefits;
- 3.8. identify examples of environmental conditions that may threaten plant and animal survival.

Understanding Life Systems: Habitats and Communities

By the end of Grade 4, students will:

- 3.3. identify factors that affect the ability of plants and animals to survive in a specific habitat.

Understanding Life Systems: Biodiversity

By the end of Grade 6, students will:

- 1.2. assess the benefits that human societies derive from biodiversity.

Understanding Life Systems: Interactions in the Environment

By the end of Grade 7, students will:

- 3.1. demonstrate an understanding of an ecosystem as a system of interactions between living organisms and the environment.

Understanding Structures and Mechanisms: Systems in Action

By the end of Grade 8, students will:

- 3.2. identify various types of systems (e.g. food system).

CONTEXT

The Needs of Farm Animals

- Raising healthy and productive farm animals requires hard work, commitment, and expertise on the three H's of animal care: husbandry, housing, and health.
- **Husbandry** is the daily management and care of livestock. Farmers are morally and legally responsible for the care of their animals. They must provide with them the appropriate food and shelter, as well as also ensure their animals are not subjected to unnecessary pain and excessive stress.
- **Housing** are the various structures (e.g. building or barns) that farmers use to house their livestock and protect them from weather, predators, accidental injuries, and disease. In Canada, most livestock are raised in "controlled or confined" systems which help to ensure farmers can efficiently feed, clean, and care for their animals.
- **Health** is important for both humans and animals. Farmers are required to maintain healthy environments for their livestock. Farmers can also use regulated products to treat sick animals or prevent others from getting sick. The health of animals is mostly managed through husbandry, breeding, nutrition and technology.

- There are also 13 Codes of Practice in Canada that farmers must legally follow. To find out more review the Livestock and Animal Health Infographic located at, <https://agscape.ca/resources>.

TEACHING AND LEARNING STRATEGIES

Part 1:

1. Explain to the students that you will be talking about farms for a few days. Ask them what they know about farms. Focus the conversation on what animals are on farms.
2. Tell the students that they will be describing an animal. As a class, practice by describing a horse. Ask the students about colour, size, number of legs, etc. Does it have fur or feathers? Wings? A beak or a nose? Try to encourage them to be as specific as possible as though they were describing a horse to someone who has never seen one.
3. Divide the class into six groups. Each group will study one animal (pig, dairy cow, beef cow, sheep, fish, and chicken). Send the groups to their tables and put a picture or model of the animal that each group will study in the center of the table. Have each student write a description of their animal. You may need to roam the room, reminding them to add details.
4. When the students finish, ask for someone from each group to describe the animal.

Part 2: Version 1 of the Activity (Grades 1-3)

1. Tell students you have just moved onto a farm. You have pigs, dairy cows, beef cows, chickens, sheep, and fish, but you need some help to take care of all the animals. Ask students what you (or a farmer) may need for animals to grow strong and be healthy.
 - a. Food
 - b. Clean Water
 - c. Shelter
 - d. Fresh Air
 - e. Light & Electricity
 - f. Medicine/Veterinary Services
2. After discussing the various needs of farm animals with students, allow students to choose a farm animal they are going to take care of (i.e. pigs, dairy cows, beef cows, chickens, sheep or fish).
3. After each student has selected 1 farm animal, hand out the corresponding recipe cards (**Appendix A**) along with a Ziploc bag and 1 piece of tape for students to tape their recipe card to the bag.
4. Explain the contents of the recipe card to students (have a completed example projected for the students' display). Explain that there are stations (**Appendix C**) set up around the room with all the required ingredients.
5. Students will take their Ziploc bags and recipe cards as they go around the room to the various stations to collect all the ingredients to raise a healthy animal.
6. Once students have followed their recipe, they will be given an image of their farm animal to colour (**Appendix B**). When they have completed colouring their farm animal, students will then cut it out and glue it onto the blank white paper.
7. After gluing the farm animal onto the blank white paper, students will then draw a shelter for the animal, as well as the other "needs" as outlined on the recipe card they followed.

Part 2: Version 2 of Activity (Grade 4-8).

1. Tell students you have just moved onto a farm. You have pigs, dairy cows, beef cows, chickens, sheep, and fish, but you need some help to take care of all the animals. Ask students what you (or

a farmer) may need for the animals to grow strong and be healthy:

- a. Food
 - b. Clean water
 - c. Shelter
 - d. Fresh air
 - e. Light & Electricity
 - f. Medical/Veterinary Services
2. After discussing the various needs of farm animal with students, allow students to choose a farm animal to take care of.
 3. After each student has selected 1 farm animal, hand out the corresponding recipe cards (**Appendix A**) along with a Ziploc bag filled with 8 pieces of the same material (e.g. cotton balls, strips of blue paper, popsicle sticks, strips of yellow paper, red cross, feed) in the bag. For example, one student will receive 8 cotton balls, another student will receive 8 strips of blue paper, and another student will receive popsicle sticks.
 4. Instead of handing out multiple bags of red crosses, hand out enough red crosses needed to keep $\frac{3}{4}$ of the animals alive (e.g. for a class of 30 students, hand out 22 red crosses or two bags of 11)
 5. Distribute the different materials randomly throughout the class
 6. Ask students to review their recipes to see what resources they need to acquire to ensure their animal survives.
 7. Tell students they will be first allowed to trade with their neighbors to try and acquire the resources they need.
 8. Tell students they can barter for their trades (e.g. I will give you 1 air for 3 waters). After 5 minutes, tell students they will be allowed to trade with anyone in the class.
 9. Tell students that they have 10 minutes to get all the resources required to complete their recipe. After they have filled their recipe, students must return to their seats.
 10. At the end of the 10 minutes, address the students still standing and tell them their animal did not survive or is not healthy enough to be sold to the market for consumption.
 11. Ask them what resources they needed for their animals, and the difficulties associated with acquiring them.
 12. Ask students to return to their seats and explain to students the three H's of animal care: housing, husbandry, and health.
 - a. How important are these resources to animals or humans?
 - b. How important is it to farmers that they have healthy animals?
 - c. Did they always do even (1-1) or uneven trades (1-3)?
 - d. What resources did they do uneven trades for and why?
 - e. What must people do to ensure humans, animals, and plants have access to these resources
 - f. Describe how the farm is an ecosystem or a food system
- **Optional:** students can now retrieve an image of their animal (**Appendix B**). Students will then colour their animal, cut it out, and paste it onto a blank piece of paper. They will then colour a scene around the animal with all the additional resources they need to survive.

ASSESSMENT AND EVALUATION

Observation and anecdotal records during breakout session.

- Can students accurately describe various farm animals in detail?

Appendix A: Farm Animal Needs

- Are students able to complete the recipe provided?

ENRICHMENT

Students could write a mini book with pictures of their chosen animal.








School to Home Connection: have students find products that are made from/come from various farm animals in their homes. Make a list of the products and where they were found. Students can share with classmates the next day.

Invite a Dairy Educator to come into the classroom to talk about healthy food choices for animals and people. Contact Dairy Farmers of Ontario by visiting www.milk.org.

APPENDIX A – ANIMAL NEEDS RECIPES: PIGS

Pigs:








- 3 cotton balls for air: Pigs have fans to keep cool since they cannot sweat.
- 2 blue papers for water: Pigs have access to water 24 hours a day.
- 2 popsicle sticks for shelter: Pigs live in a barn for protection from the sun, heat, and cold.
- 1 yellow paper: Pig barns need electricity to power lightbulbs.
- 2 red crosses: Veterinarians will visit pigs if they get sick. Many barns have showers to use before and after going into the barn.
- 1 scoop/picture of corn: Corn is part of the feed that pigs eat.
- 1 scoop/picture of soybeans: Soybeans is part of the feed that pigs eat.

Amount	Object
3	
2	
2	
1	
2	
1	
1	

APPENDIX A – ANIMAL NEEDS RECIPES: DAIRY COWS

Dairy Cows:








- 2 cotton balls for air: Many dairy barns have walls that open and close to allow air to flow through.
- 2 blue papers for water: Dairy cows have access to water 24 hours a day.
- 2 popsicle sticks for shelter: Dairy cows live inside a barn which is where they are milked. During spring, summer and fall when the weather is good, they can go outside to pasture.
- 2 yellow paper: Milking machines require electricity. Some farms can make power from manure.
- 2 red crosses: Veterinarians will visit dairy cows if they get sick.
- 1 scoop/picture of hay: Hay is part of the feed that dairy cows eat.
- 1 scoop/picture of corn: Corn is part of the feed that dairy cows eat.

Amount	Object
2	
2	
2	
2	
2	
1	
1	

APPENDIX A – ANIMAL NEEDS RECIPES: BEEF COWS

Beef Cows:








- 1 cotton ball for air: Beef cows spend a lot of time outside.
- 2 blue papers for water: Beef cows have access to water 24 hours a day.
- 1 popsicle stick for shelter: Beef cows only live in a barn in the winter when it is cold.
- 1 yellow paper: Electricity is used to power lightbulbs in the barn.
- 1 red cross: Veterinarians will visit beef cows if they get sick.
- 1 scoop/picture of hay: Hay is part of the feed that beef cows eat.
- 1 scoop/picture of corn: Corn is part of the feed that beef cows eat.

Amount	Object
1	
2	
1	
1	
1	
1	
1	

APPENDIX A - ANIMAL NEEDS RECIPES: CHICKENS

Chickens:








- 2 cotton balls for air: Chicken barns have fans to keep the chickens at comfortable temperatures as well as to lower dust levels.
- 2 blue papers for water: Chickens have access to water 24 hours a day.
- 2 popsicle sticks for shelter: Chickens live in different types of barns, and some have access to the outside when it is warm.
- 1 yellow paper: Electricity is used to power lightbulbs in the barn.
- 1 red cross: Veterinarians will visit chickens if they get sick.
- 1 scoop/picture of soybeans: Soybeans is part of the feed that chickens eat.
- 1 scoop/picture of corn: Corn is part of the feed that chickens eat.

Amount	Object
2	
2	
2	
1	
1	
1	
1	

APPENDIX A – ANIMAL NEEDS RECIPES: SHEEP

Sheep:






- 1 cotton ball for air: Sheep spend a lot of their time outside.
- 2 blue papers for water: Sheep have access to water 24 hours a day.
- 1 popsicle stick for shelter: Sheep live in a barn when it gets cold outside.
- 1 yellow paper: Electricity is used to power lightbulbs in the barn.
- 1 red cross: Veterinarians will visit sheep if they get sick.
- 1 scoop/picture of hay: Hay is part of the feed that sheep eat.
- 1 scoop/picture of corn: Corn is part of the feed that sheep eat.

Amount	Object
1	
2	
1	
1	
1	
1	
1	

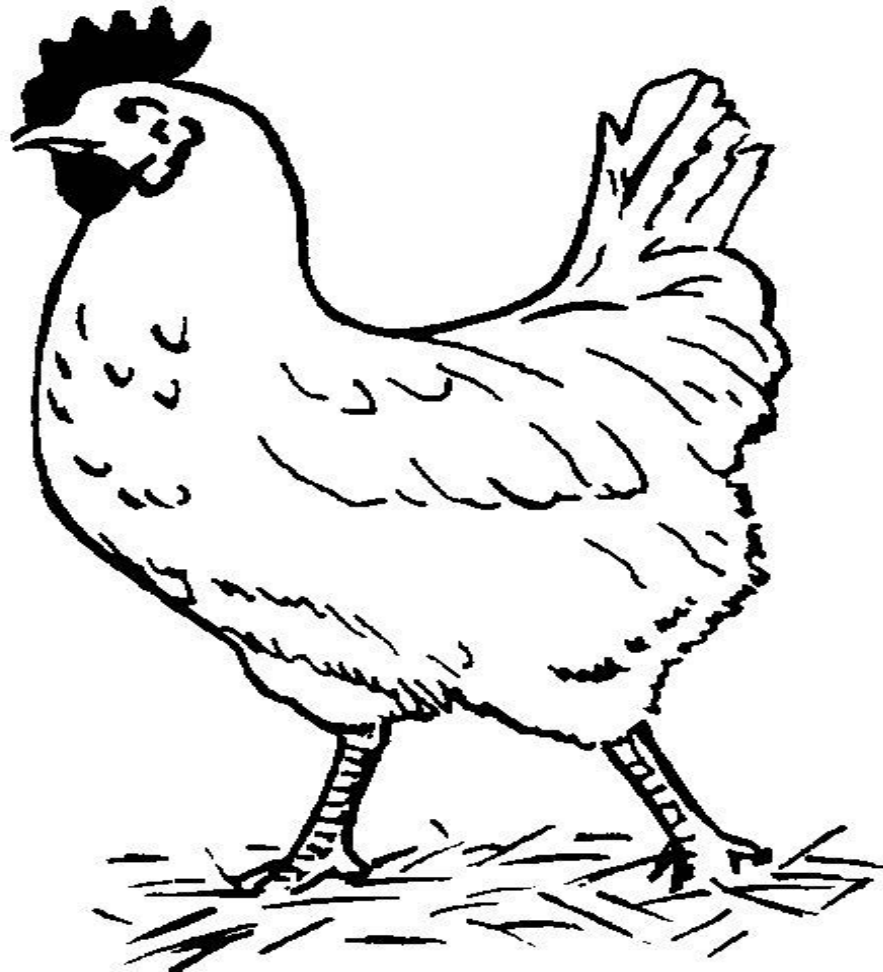
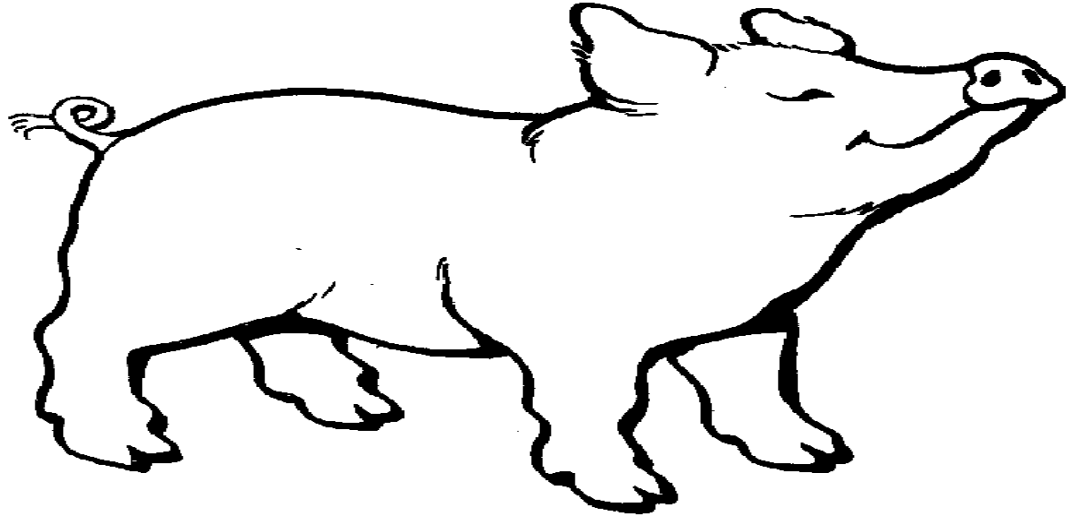
APPENDIX A – ANIMAL NEEDS RECIPES: FISH

Fish:

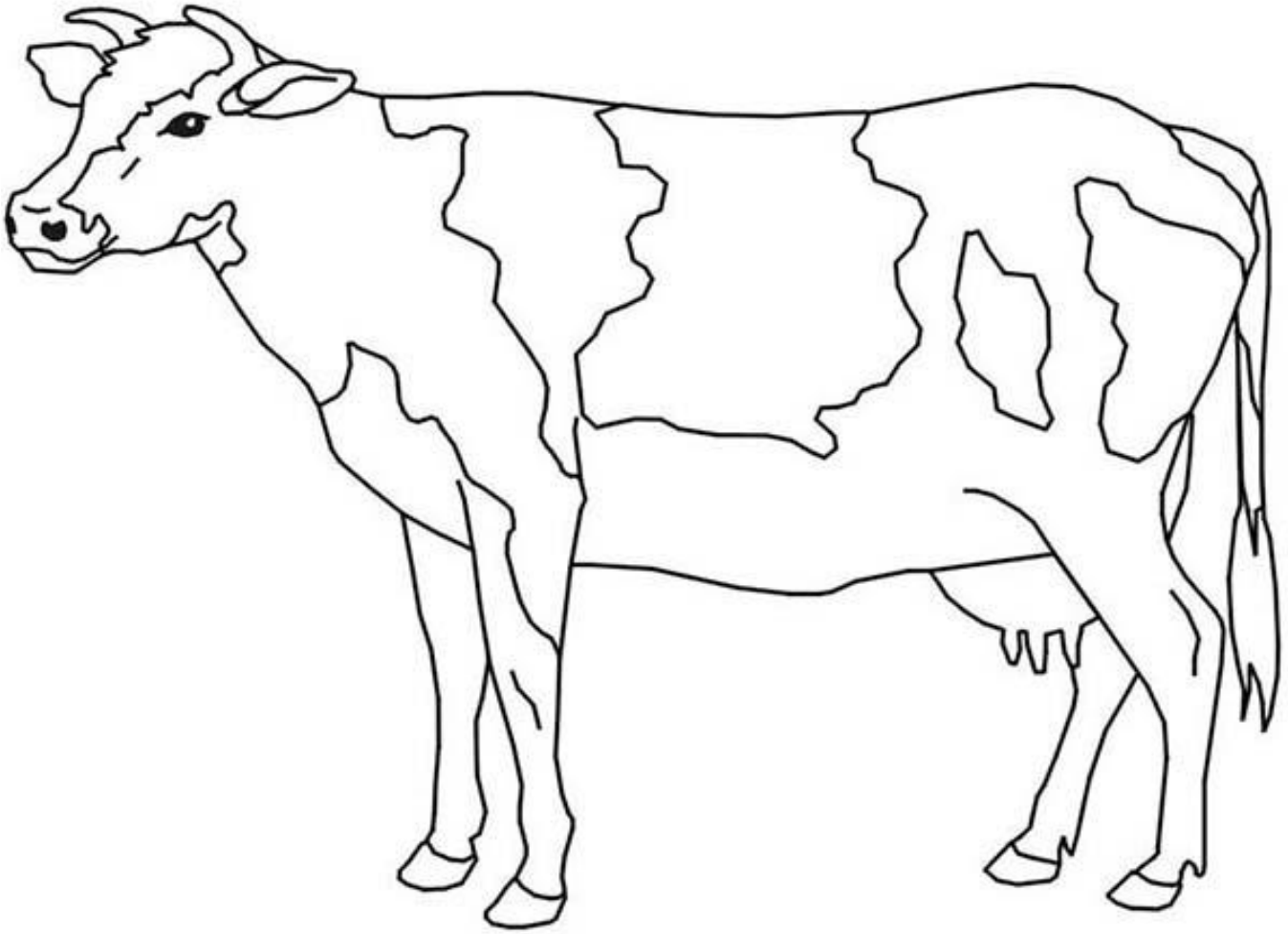
- 4 blue papers for water: Farmed fish live in the water.
- 1 popsicle stick for shelter: Farmed fish live in small ponds or in cages in large bodies of water.
- 1 red cross: Veterinarians can prescribe medication for fish if they are sick.
- 1 scoop/picture of soybeans: Soybeans is part of the feed that fish eat.
- 1 scoop/picture of corn: Corn is part of the feed that fish eat.

Amount	Object
4	
1	
1	
1	
1	

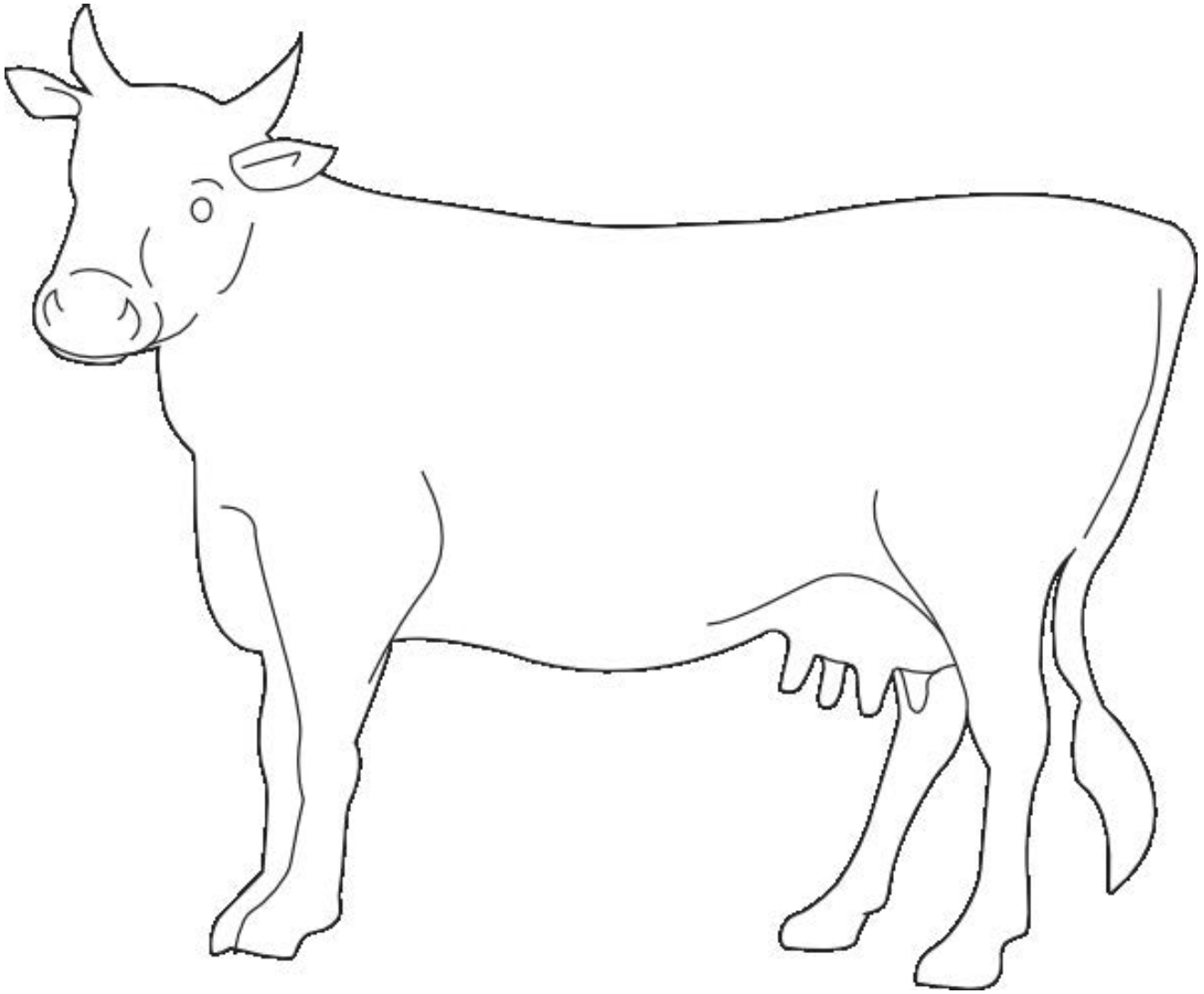
APPENDIX B – FARM ANIMAL PICTURES (PIG & CHICKEN)



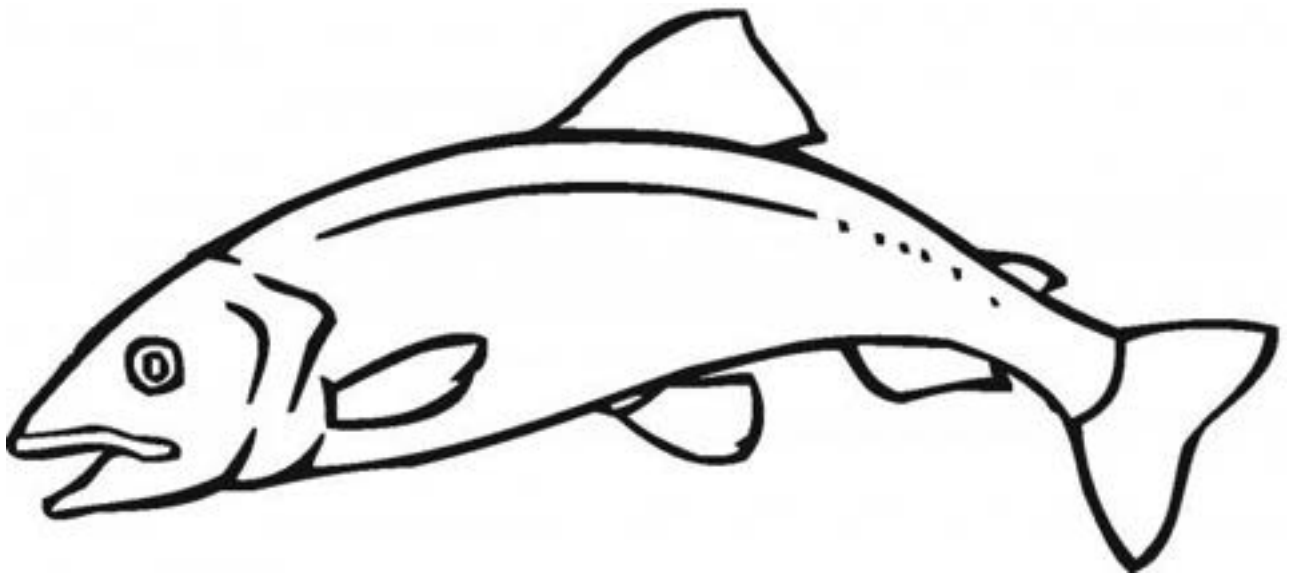
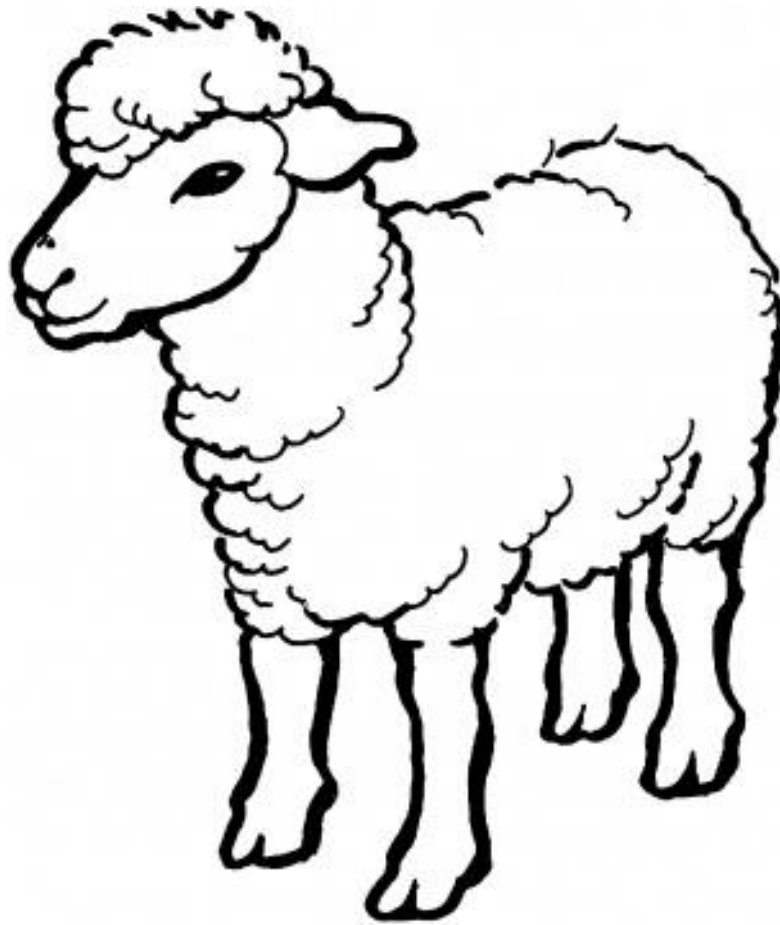
APPENDIX B – FARM ANIMAL PICTURES (DAIRY COW)



APPENDIX B – FARM ANIMAL PICTURES (BEEF COW)



APPENDIX B – FARM ANIMAL PICTURES (SHEEP & FISH)



APPENDIX C - FARM ANIMAL NEEDS STATION LABELS (WATER)



APPENDIX C - FARM ANIMAL NEEDS STATION LABELS (AIR)



APPENDIX C - FARM ANIMAL NEEDS STATION LABELS (VETERINARY)



APPENDIX C - FARM ANIMAL NEEDS STATION LABELS (HAY)



APPENDIX C - FARM ANIMAL NEEDS STATION LABELS (SOYBEANS)



APPENDIX C - FARM ANIMAL NEEDS STATION LABELS (CORN)



APPENDIX C – FARM ANIMAL NEEDS STATION LABELS (SHELTER)

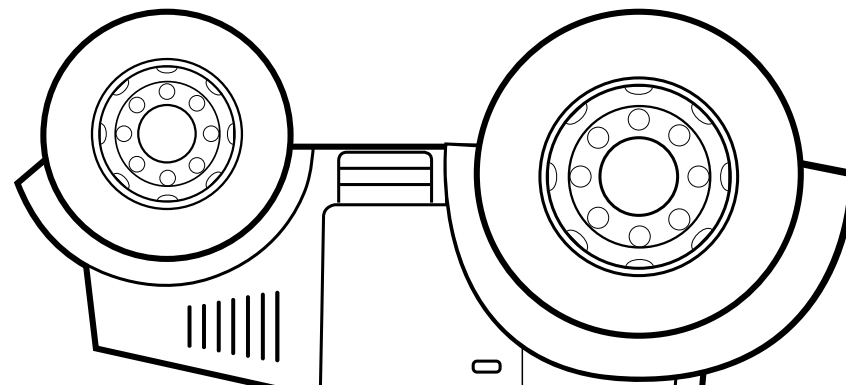


FARM ANIMAL NEEDS STATION LABELS (LIGHTING)

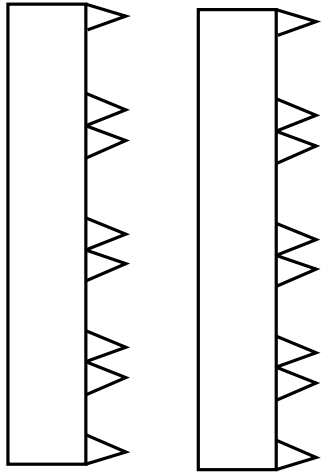


Paper Tractor

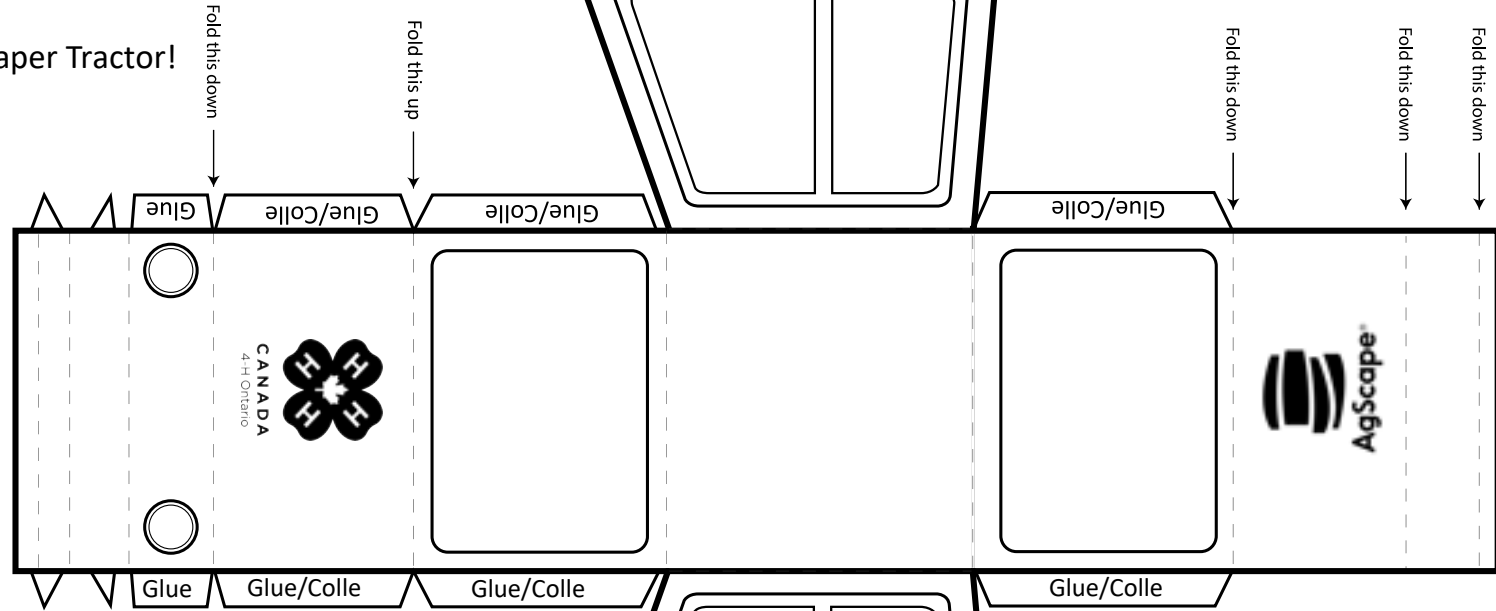
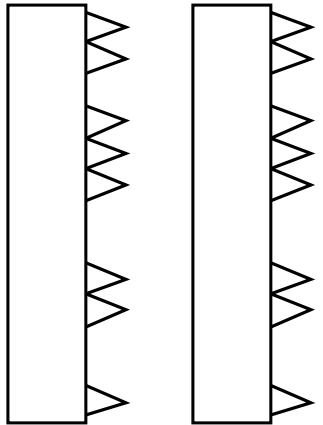
1. First, colour the tractor.
2. Cut out the tractor (tires are optional).
3. Fold the Glue/Colle flaps. They will be used to connect the Paper Tractor together.
4. Fold on all of the grey dotted lines.
5. The triangles are flaps to glue and connect the pieces (It helps for rounded spots).
6. Glue the tractor together.
7. Take a picture of your finished Paper Tractor!



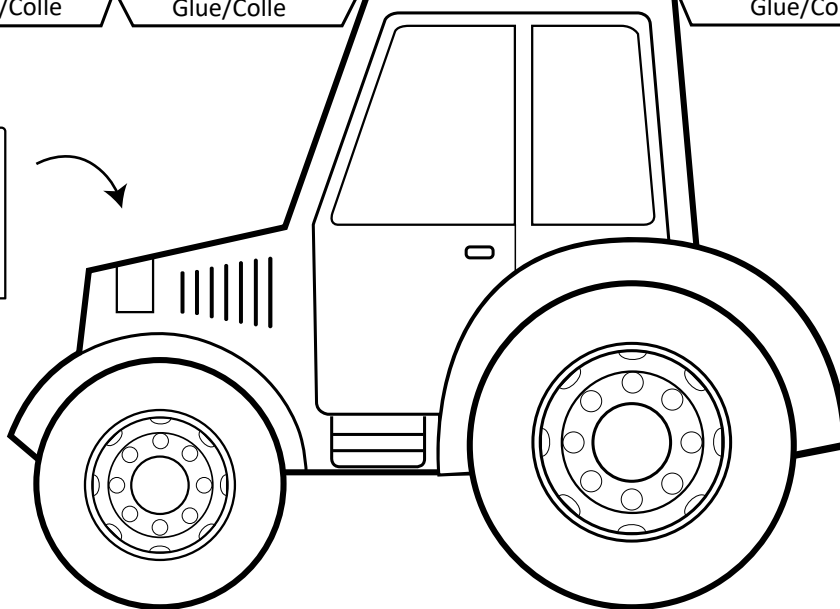
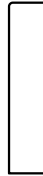
Back Tires



Front Tires



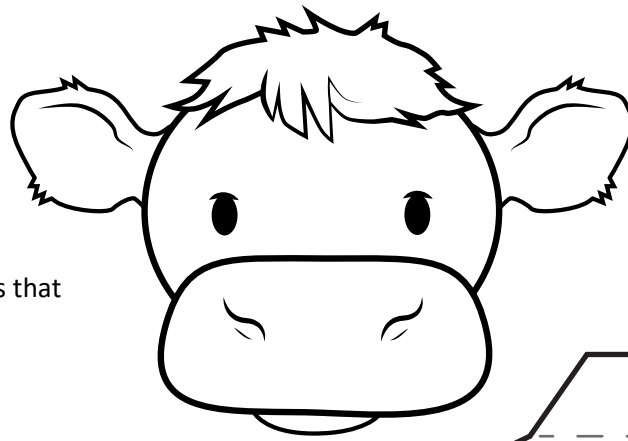
Exhaust Pipe



Paper Cow

1. First, colour the cow.
2. Cut out the cow.
3. Fold on all of the grey lines.
4. Glue/tape the cow together using the folds that says GLUE/COLLE.
5. Take a picture of your finished Paper Cow!

HEAD



GLUE/COLLE

GLUE/COLLE

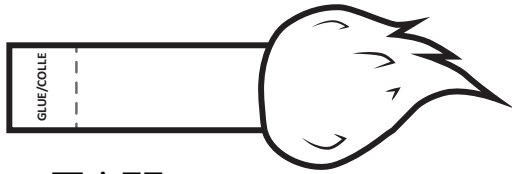
HORNS

GLUE/COLLE

GLUE/COLLE

GLUE/COLLE

TAIL



GLUE/COLLE

GLUE HEAD
HERE

GLUE
TAIL
HERE



GLUE/COLLE



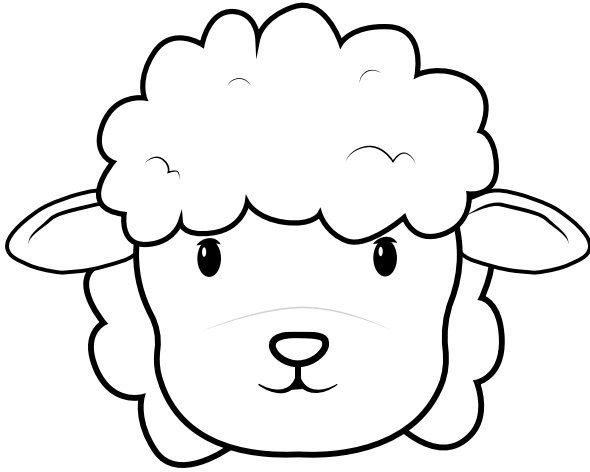
BODY

PAPER SHEEP

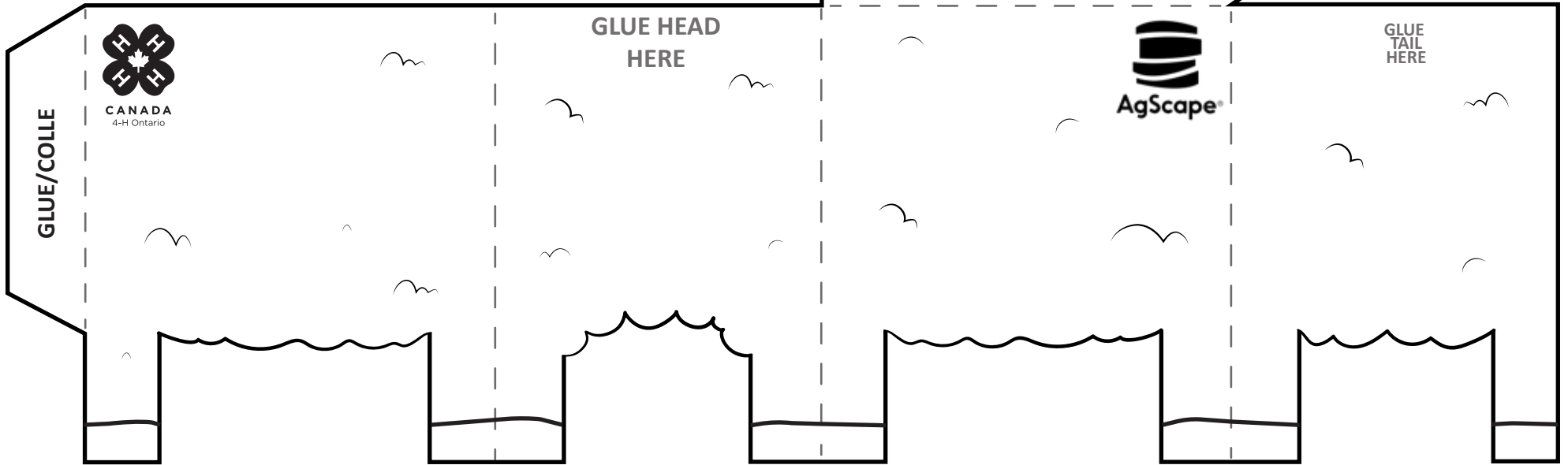
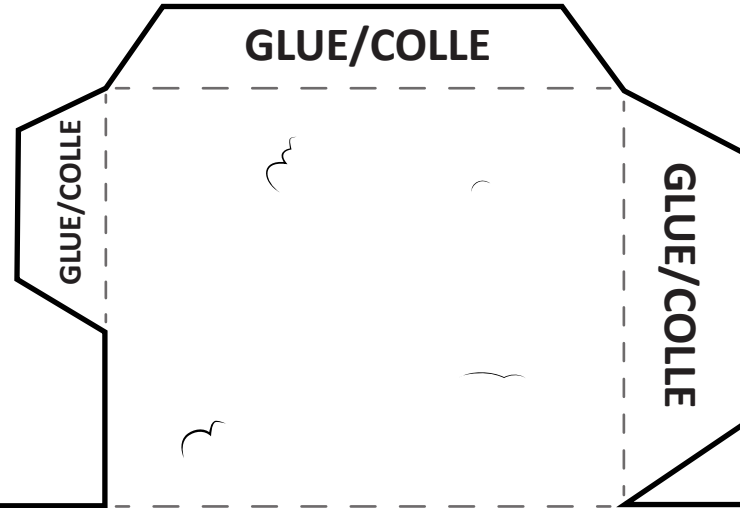
First, colour your sheep.
Cut out the sheep following the dark solid lines.
Fold along the dotted lines.
Using glue or tape to put the body together.



HEAD



TAIL



BODY

Fair Activity

ANIMAL NEEDS

INSTRUCTIONS

- To play, divide your students into different teams, one for each animal.
- Each team will work together to get all the necessary items for their survival, hidden around The Fair.
- At each station, players will need to collect the correct coloured stamp.
- There are more stations for water, air, and food.
- The teams will also complete an 'Animal Profile' for the needs of their animal.

LIST OF TEAMS

- PIG
- DAIRY COW
- BEEF COW
- CHICKEN
- SHEEP

Presented with:





The Royal
AGRICULTURAL WINTER FAIR

ANIMAL NEEDS GAME: ANIMAL PROFILE

Name: _____

Date: _____

TEAM ANIMAL:

PICTURE OF ANIMAL:

A BABY OF THIS ANIMAL IS CALLED A...

THIS ANIMAL EATS...

THIS ANIMAL NEEDS SHELTER THAT...

FACTS ABOUT ANIMAL:



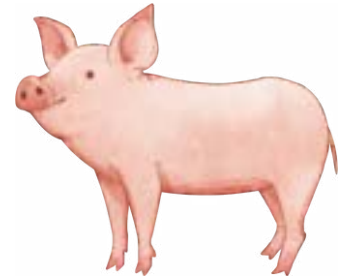
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AGRICULTURAL WINTER FAIR

PIG FACT PAGE



Pigs have fans to cool themselves because they can't sweat.



Pigs have access to water 24 hours a day.



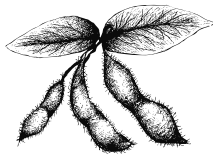
Pigs live in a barn for protection from the sun, heat, and cold.



Pig barns need electricity to keep it warm and well-ventilated.



Pigs need veterinarians when they get sick.



Soybeans are a part of a pig's diet.



Corn is a part of a pig's diet.



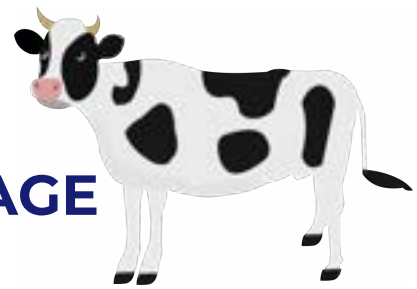
Presented with:





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DAIRY COW FACT PAGE



Dairy barns have walls that open & close to allow in air.



Cows have access to water 24 hours a day.



Dairy cows live inside a barn which is where they are milked.



Milking machines require electricity.



Cows need veterinarians when they get sick.



Hay is part of a cow's diet.



Corn is a part of a cow's diet.



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BEEF COW FACT PAGE



Beef cows spend a lot of time outside.



Cows have access to water 24 hours a day.



Beef cows only live in a barn in the winter when it is cold.



Electricity is used to power lightbulbs in the barn.



Cows need veterinarians when they get sick.



Hay is part of a cow's diet.



Corn is a part of a cow's diet.



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CHICKEN FACT PAGE



Chicken barns have fans to keep the chickens at comfortable temperatures.



Chickens have access to water 24 hours a day.



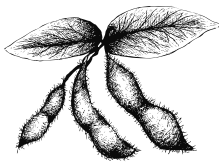
Chickens live in different types of barns called coops.



Electricity is used to power lightbulbs in the barn.



Chickens need veterinarians when they get sick.



Soybeans are a part of a chicken's diet.



Corn is a part of a chicken's diet.

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SHEEP FACT PAGE



Sheep spend a lot of their time outside.



Sheep have access to water 24 hours a day.



Sheep live in a barn when it gets cold outside.



Electricity is used to power lightbulbs in the barn.



Sheep need veterinarians when they get sick.



Hay is part of a sheep's diet.



Corn is a part of a sheep's diet.



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ANIMAL NEEDS GAME: STAMP COLLECTOR

Name: _____

Date: _____

TEAM ANIMAL:

Find the stations for each of the Animal Needs around The Fair. Place a stamp on every icon to collect all the things your Team's Animal needs to thrive.



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