

Little Red Hen's Harvest

Grades: K-2

Purpose

Students will read the story, "The Little Red Hen," discuss all the different careers involved in producing a loaf of bread and act out a play based on the story. Students will sprout wheat seeds.

Keywords

wheat, bread, careers, community, economics, harvest, Little Red Hen

Materials

ACTIVITY 2

- Little Red Hen Story, Little Red Hen play script, puppet head pictures (included)
- Heavy paper for printing puppet head pictures, craft sticks

ACTIVITY 4

- Seed wheat
- Paper towels
- Paper plates

WHEAT GERM DNA EXPERIMENT

- DNA Lab Sheet
- water
- 1 beaker
- raw wheat germ (sold with cereal)
- liquid soap
- spoon
- stirrer
- baking soda
- meat tenderizer
- test tube
- eye dropper
- denatured alcohol (sold with paint supplies)
- wooden stirring stick

Interest Approach or Motivator

As a class, read the story, "The Little Red Hen," included with this lesson. [insert
—Discuss the concept of cooperation and teamwork. Ask students to list some examples of cooperation and teamwork at home or in the classroom. Ask students to describe their own responsibilities at home and at school.

Background

Wheat farmers have many different jobs to do. At different times, a wheat farmer may be a machine operator, a mechanic, a salesperson, a businessperson, a banker, a bookkeeper or a manager. Some wheat farmers do all these jobs themselves, but most depend on help from a whole community of workers.

What if every farmer had the same problem as the Little Red Hen, with no one willing to help? Wheat farmers prepare their fields, plant the wheat and wait for it to grow. The Little Red Hen probably had a very

small patch of wheat, but most wheat fields are much larger. When it is time to cut the wheat, the farmer needs some help.

The wheat we eat comes from the seeds of the wheat plant. To get the seeds, or berries, the wheat must be cut, threshed and winnowed. Threshing shakes the seeds loose and winnowing separates the seeds from the rest of the plant. Those three steps are all part of harvesting wheat. They can be combined using a big machine called a combine. A combine is a very expensive piece of machinery, so many wheat farmers hire a custom harvester. Custom harvesters take their combines all across the country during wheat harvest going farm to farm to help cut the wheat and get it ready to sell.

The harvested wheat is loaded into trucks and driven to a grain elevator where it is weighed, tested and stored. After that the wheat goes to the mill where the miller grinds it into flour. The wheat berries must be crushed many times and put through many screens before the particles are fine enough to use for flour. Then it is ready for the baker to make it into bread.

Growing the bread that we eat takes teamwork. When everyone helps out, no one is left, like the Little Red Hen, to do the work alone. And we all get to enjoy the finished product.

Preparing the soil for planting

The farmer drives a tractor that pulls the plow through the fields. The plow turns the soil over and kills all the weeds. Then the farmer connects the tractor to a disk harrow and drives it over the field. The disk harrow breaks the soil down into smaller pieces. When the soil is ready for planting, the farmer uses a grain drill to plant the seed.

Procedures

ACTIVITY ONE

1. Students will discuss the steps The Little Red Hen follows to make her bread.
2. Students will make timelines and draw pictures to illustrate the steps in the story.
3. Read and discuss background and vocabulary.
4. Students will listen for steps in the background that are not included in the story. Discuss.
5. Students will fill in their timelines with the additional steps they have listed.

ACTIVITY TWO

1. Assign parts for the play included with this lesson. Make sure each student has a part. Students may take turns reading the same part, if necessary. Copy the pictures included with this lesson onto cardstock. [insert puppets.pdf]
2. Hand out art sticks and the printed picture associated with each student's part.
3. Students will color the pictures and glue the art sticks to the back to make stick puppets.
4. Hand out copies of the play.
5. Students will read their parts and act out the play.

ACTIVITY THREE

1. Discuss all the different jobs a farmer has to do, based on the list, the story and the play. Make a list on the board.
2. Students will work in groups and write their own plays with characters based on all the different jobs you have listed.

ACTIVITY FOUR

1. Obtain seed wheat from a local farmer, farmer's cooperative or feed store.
2. Sprout an even number of seed on a moist paper towel.



3. Fold the towel in half, placing the seeds inside the fold.



4. Put the towel on a paper plate.
5. Mist the paper towel daily to keep the seeds moist.
6. Place in a sunny window and watch the wheat grow.



7. Students will make predictions about the number of seeds that will germinate and record their observations daily.

Enriching Activity

ACTIVITY ONE

1. Read different versions of “The Little Red Hen.”
2. Students will name the author and illustrator of each book and discuss the roles of all the characters.
3. Make a Venn diagram or chart individually or as a class to show how the stories are alike and different. Charts should include characters, settings, and major events from the stories.

ACTIVITY TWO

1. Find a place on the playground or in an outdoor classroom for students to grow a small bed of wheat.

Vocabulary

bread—a baked food made of flour or meal

combine— a machine that harvests, threshes, and cleans grain while moving over a field

farmer—a person who cultivates land or crops or raises animals

flour—finely ground powdery meal of wheat or of any cereal grain or edible seed

harvest—the gathering of a crop

miller—a person who operates a mill, especially a person who grinds grain into flour

thresh— to separate seed from a harvested plant especially by using a machine or tool

tractor—a vehicle that has large rear wheels or moves on tracks and is used especially for pulling farm implements

wheat—a cereal grain that can be made into a fine white flour used mostly in breads, baked goods (as cakes and crackers), and pasta as (as macaroni or spaghetti) and that is used in animal feeds

winnow— to remove by a current of air the parts separated from grain in threshing

Wheat Facts

- There are six kinds of wheat grown in the US. These include
 - durum, used to make semolina flour for pasta
 - hard red spring wheat, used for bread and hard baked goods
 - soft red winter wheat, used for bread
 - hard white wheat, used for bread and brewing
 - soft white wheat, used for bread.
 - hard, red winter wheat used for bread.
- It takes a combine nine seconds to harvest enough wheat to make 70 loaves of bread.
- Wheat is grown on more land area worldwide than any other crop and is a close third to rice and corn in total world production.
- Because wheat is such a versatile crop, it is being harvested somewhere in the world every month of the year.
- There are about 50 kernels in a head of wheat and 15,000 to 17,000 kernels in a pound.
- Some varieties of wheat grow as tall as seven feet, but most are only between two and four feet tall.

Standards

NATIONAL AG LITERACY

1. Plants and Animals for Food, Fiber and Energy

- Explain how farmers/ranchers work with the lifecycle of plants and animals (planting/breeding) to harvest a crop.
- Identify the importance of natural resources (e.g., sun, soil, water, minerals) in farming.

5. Culture, Society, Economy & Geography

- Trace the sources of agricultural products (plant or animal) used daily.

- Identify plants and animals grown or raised locally that are used for food, clothing, shelter and landscapes
- Discuss what a farmer does.
- Explain why farming is important to communities.
- Identify the people and careers involved from production to consumption of ag products.

CONTENT STANDARDS

Economics—D2.Eco.1,2,3,4,6

Science—LS1.1,2; ESS.3

COMMON CORE

English Language Arts—RL.1,2,3,4,6,9,10; SL.1,2,3,4,6

Resource

Who Knows Who Grows Muffin Stuffin!, Montana Ag in the Classroom, http://agr.mt.gov/agr/Programs/AgClassroom/Publications/pdf/Who_Knows_Who_Grows_Screen_Reading_View.pdf

Source/Credits

Rupp, Cindy, and Pat Thompson, “Little Red Hen,” Oklahoma Ag in the Classroom

Little Red Hen (Play)

(Characters: Farmer, Little Red Hen, Cow, Pig, Lamb)

ACT ONE

Farmer (Narrator): It is summer on the farm. The animals are in the barnyard, talking among themselves. In the corner of the barnyard, Little Red Hen discovers some golden grains of wheat.

Little Red Hen: My, my. Look what I have found. Barnyard friends, who will help me plant these wheat seeds?

Cow: Not I. I am too busy.

Pig : Not I. I have to hurry off.

Lamb: Not I. I have just too many things to do.

Little Red Hen: Then I will do it by myself.

ACT TWO

Farmer: It is fall now. The seeds have grown into wheat. The wheat is ripe and golden.

Little Red Hen: Barnyard friends, the wheat is ready to cut. Who will help me cut the wheat?

Cow: Not I. I need a nap.

Pig: Not I. I am lying in the mud.

Lamb: Not I. I am going for a run in the meadow.

Little Red Hen: Then I will do it myself.

ACT THREE

Farmer: The wheat kernels are ready to go to the mill to be ground into flour.

Little Red Hen: Who will help me take the grain to the mill?

Cow: Not I. I am eating some grass.

Pig: Not I. I am too tired.

Lamb: Not I. I am playing with my friends.

Little Red Hen: Then I will do it myself.

ACT FOUR

Farmer: Little Red Hen comes back to the farm with the flour. She quickly begins to make some bread. The smell of fresh bread fills the barnyard. All the animals gather around the Little Red Hen.

Little Red Hen: How good my bread smells. Who will help me eat the fresh bread?

Cow: I will! It smells great!

Pig: I will! I am always hungry.

Lamb: I will! What a great snack!

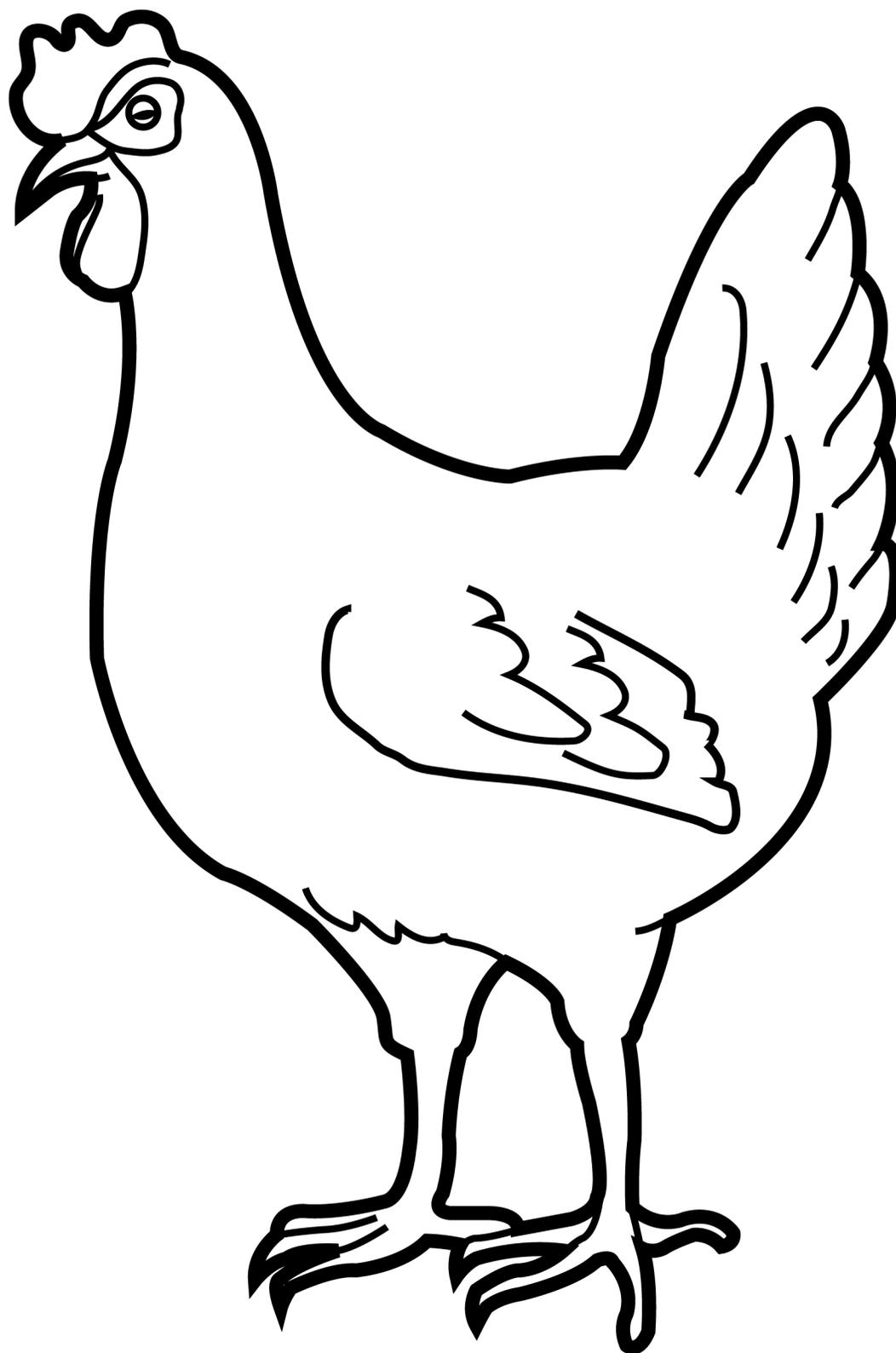
Little Red Hen: Oh, no! You cannot help me eat this bread. I had to plant the wheat and take it to the mill. Then I made the bread all by myself. I did all of the work. Now I will eat the bread—ALL BY MYSELF!

Farmer: And she did.

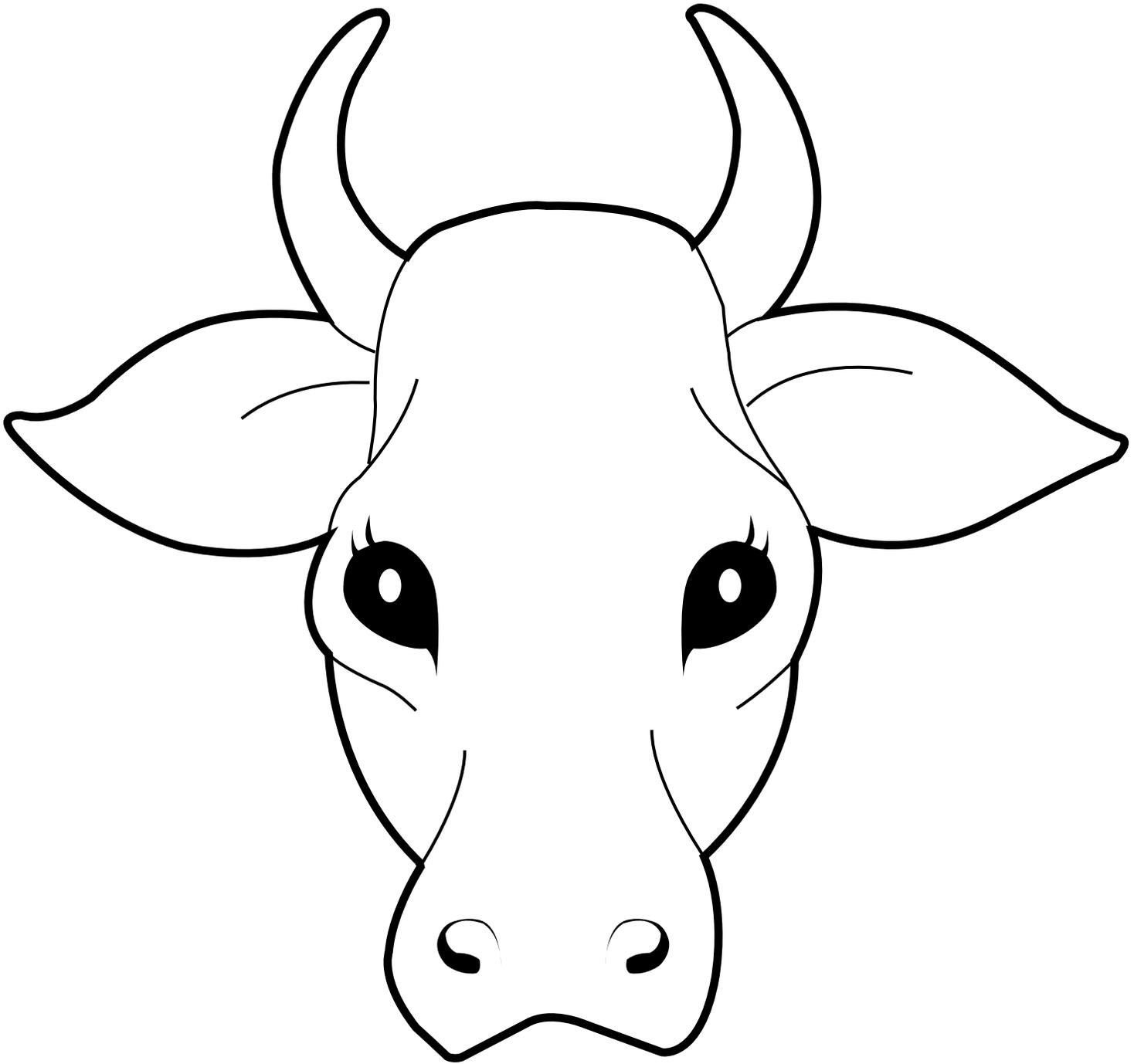
Farmer



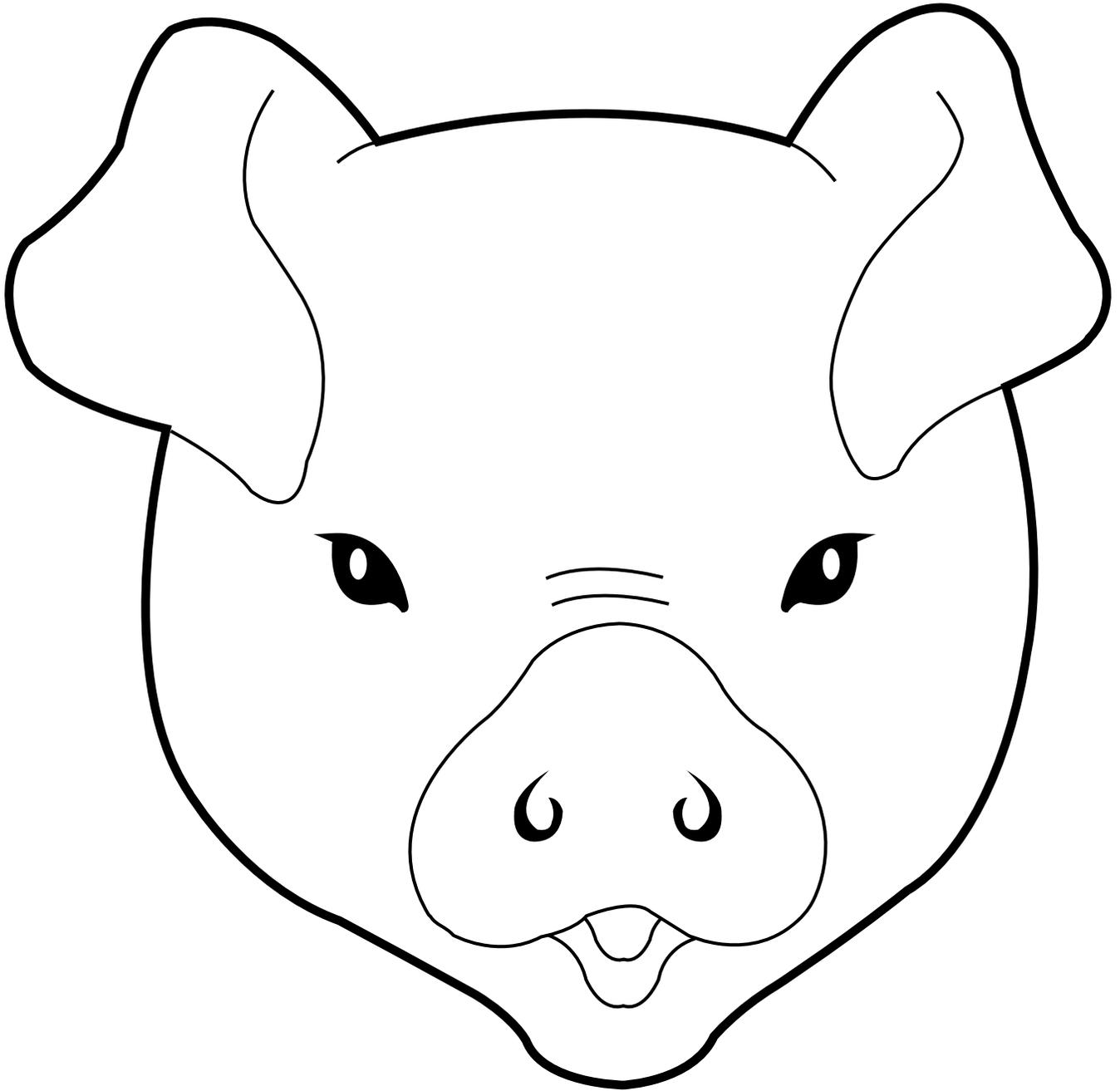
Little Red Hen



Cow



Pig



Lamb

