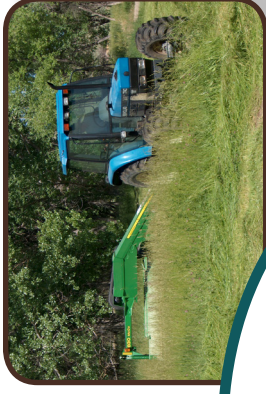
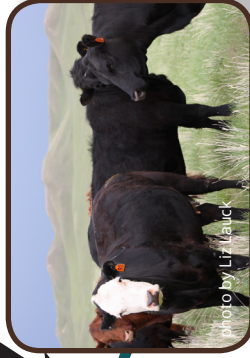


What is Agriculture?

Agriculture:

cultivating of the soil, producing of crops, and raising of livestock



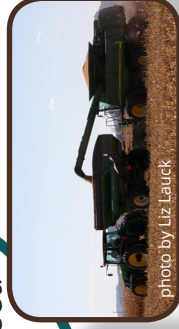
Livestock:

animals kept and used for profit

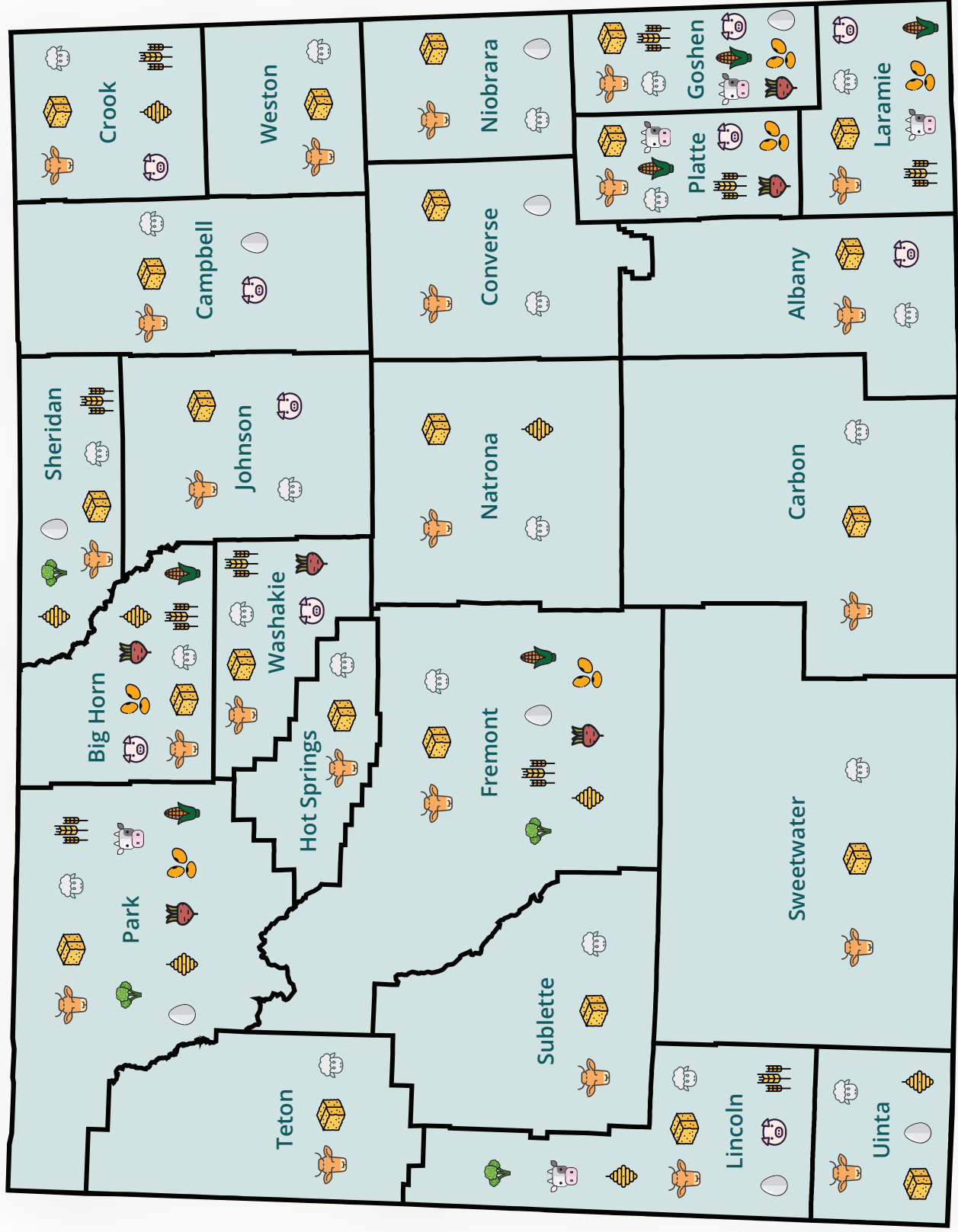
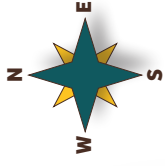


Crop:

a cultivated plant that is grown for food, fiber, medicine, or livestock feed



Wyoming Agriculture Resources



Key

- Beans
- Beef
- Bees & Honey
- Corn
- Dairy
- Grain
- Hay
- Hogs & Pigs
- Poultry
- Sheep
- Sugarbeets
- Vegetables

Food for Thought

1. What county do you live in? _____
2. What crop of livestock provides an ingredient for your favorite meal? _____
3. Is there a crop that is grown in every county? If so, what is it? _____
4. Would you like to be a farmer or rancher? Why, or why not? _____

Livestock Simulation

Cattle Rancher

Your Job: Graze your cattle so they gain weight. Keep a close eye on them. You don't want to lose them!

Sheep Rancher

Your Job: Graze your sheep so they gain weight. You'll need to keep a close eye on them. **Don't forget, your sheep can eat larkspur.**

Cow

Your Job: Graze and gain weight.

Sheep

Your Job: Graze and gain weight. You can eat **tall grass, weeds, and larkspur.**

Cow

Your Job: Graze and gain weight.

Sheep

Your Job: Graze and gain weight. You can eat **tall grass, weeds, and larkspur.**



Livestock Simulation

Cow

Your Job: Graze and gain weight.

Cow

Your Job: Graze and gain weight.

Cow

Your Job: Graze and gain weight.

Cow

Your Job: Graze and gain weight.

Cow

Your Job: Graze and gain weight.

Cow

Your Job: Graze and gain weight.



Livestock Simulation

Sheep

Your Job: Graze and gain weight.
You can eat **tall grass, weeds, and larkspur.**

Sheep

Your Job: Graze and gain weight.
You can eat **tall grass, weeds, and larkspur.**

Sheep

Your Job: Graze and gain weight.
You can eat **tall grass, weeds, and larkspur.**

Sheep

Your Job: Graze and gain weight.
You can eat **tall grass, weeds, and larkspur.**

Sheep

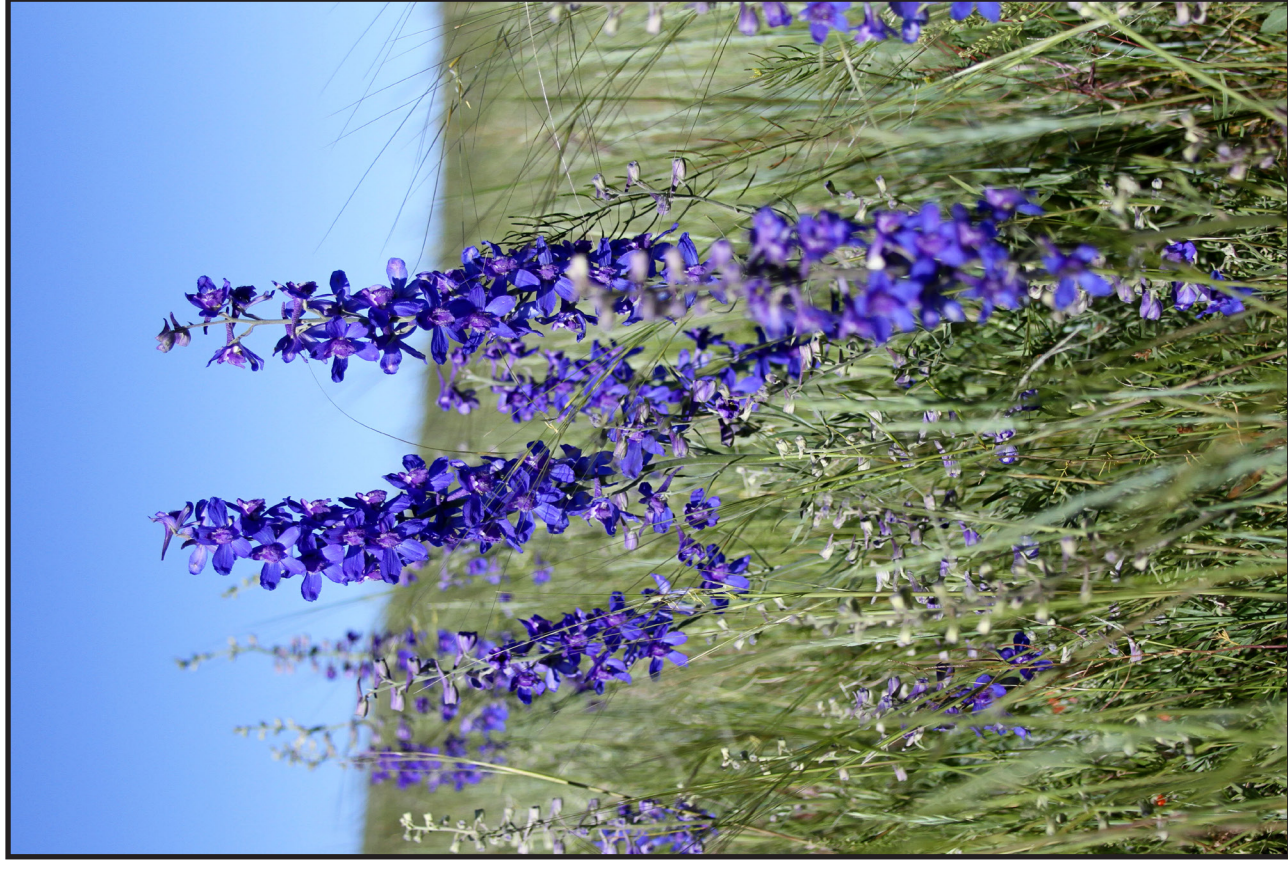
Your Job: Graze and gain weight.
You can eat **tall grass, weeds, and larkspur.**

Sheep

Your Job: Graze and gain weight.
You can eat **tall grass, weeds, and larkspur.**



Caution!
**Larkspur grows
in this pasture.
This plant is
deadly to cattle
if they eat it.**



Assessment Response Cards

A. How are ranchers in Wyoming good stewards of the land?

B. Why is Wyoming's land important to livestock?

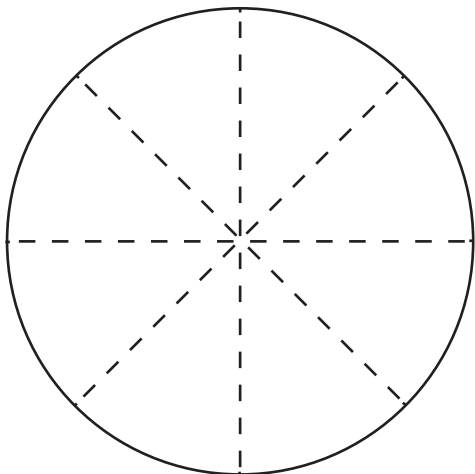
C. If Wyoming grew in population, how would it affect the land and livestock?

D. How does Wyoming's land make it unique?



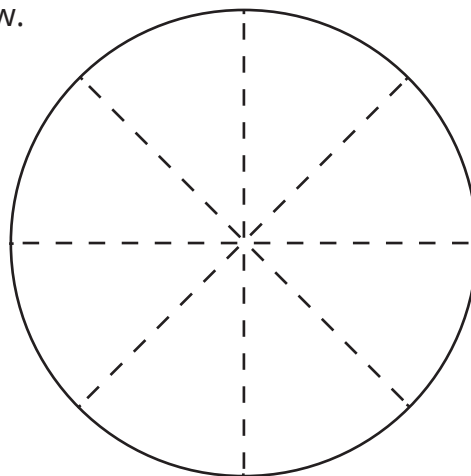
Drought! Now What?

On a normal year, Rancher Bill can grow a whole circle of hay. He needs $\frac{7}{8}$ of his field to feed his cattle through the winter. Color how much hay Bill needs to grow to feed his cattle.



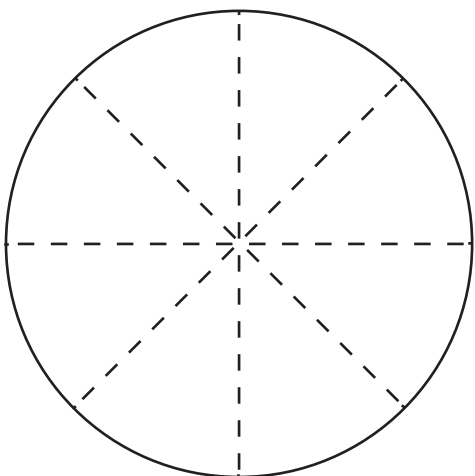
What fraction of the field of hay would he have left on a normal year?

Rancher Bill has been watching the weather reports and conditions. Based on the predicted precipitation for this year, Bill is facing a drought. He will have enough irrigation water to grow hay on $\frac{5}{8}$ of his field. Color in how much hay Bill will be able to grow.



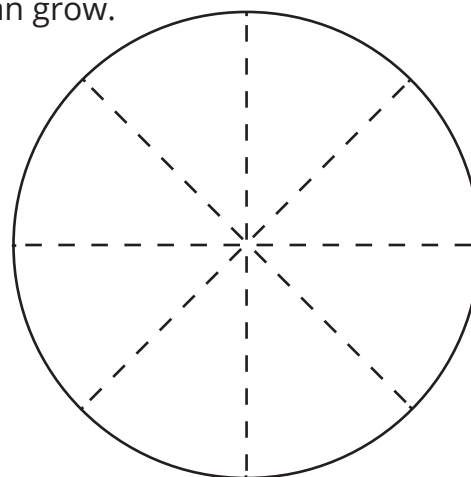
How many sections of hay will Bill need to replace to feed his cattle?

Rancher Ruth can also grow a whole circle of hay on a normal year. She feeds 10 cows with each section of her hay crop. Ruth currently has 60 cows. Color in the amount of hay Ruth uses.



What fraction of the field of hay would she have left on a normal year?

Ruth is also facing a drought. She will only have enough irrigation water to grow hay on $\frac{4}{8}$ of her field. Color in the amount of hay she can grow.



If each section feeds 10 cows, how many cows can Ruth feed? _____

How many cows will she need to sell because she won't have enough hay for them? _____

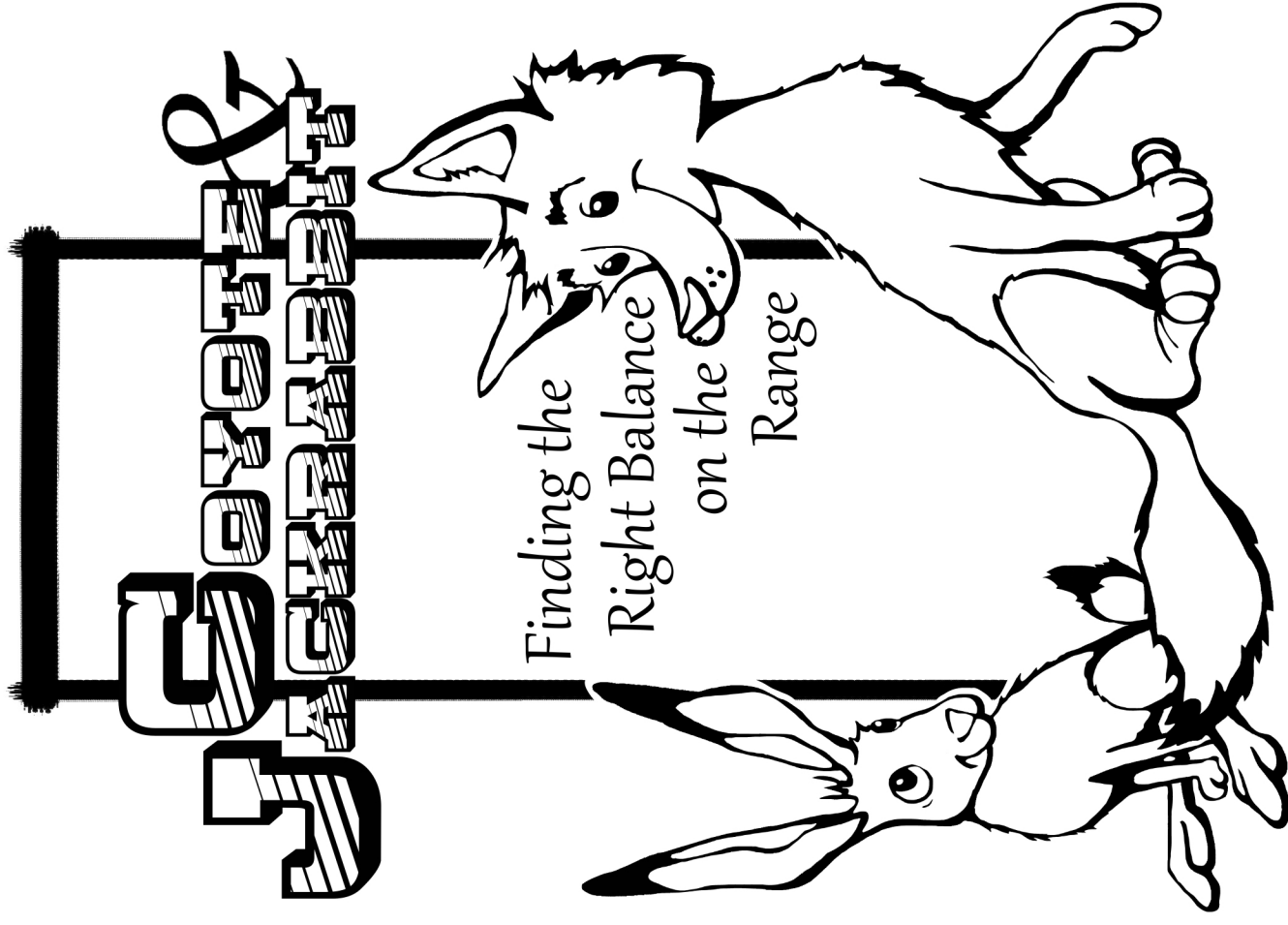




Illustrations by Marie Burghard

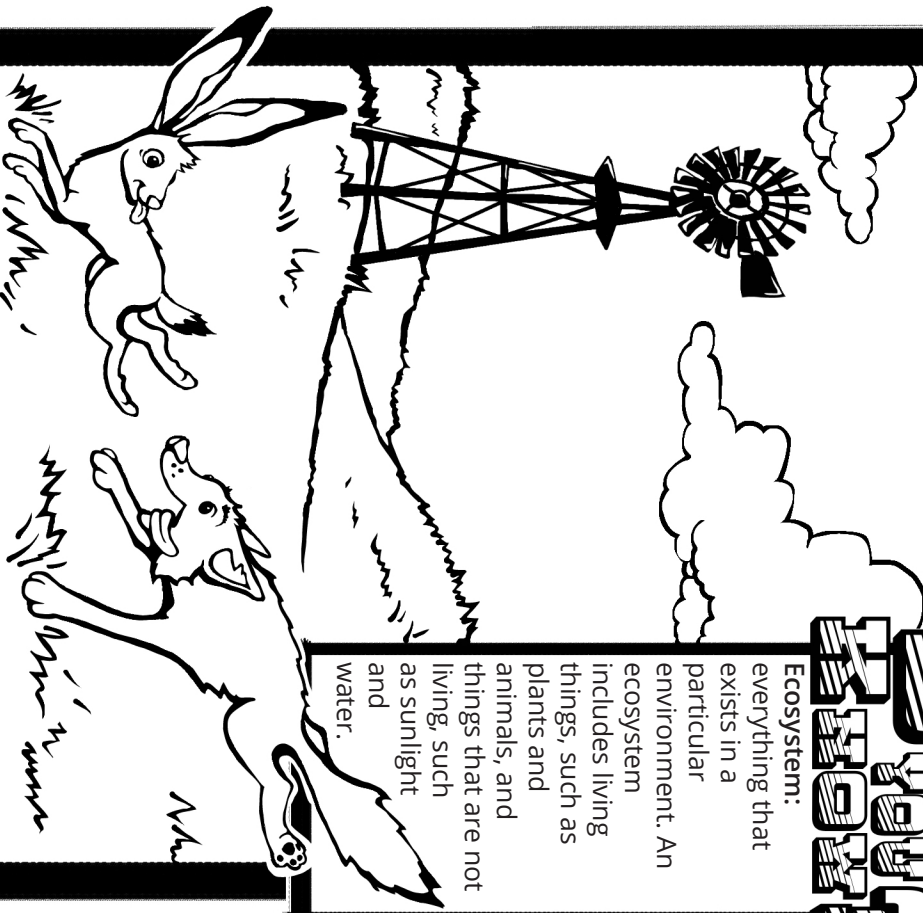
“Did You Know” Sources:

1. American Veterinary Medical Association. (2018). Canine Distemper. Retrieved September 20, 2017 from <https://www.avma.org/public/PetCare/Pages/Canine-Distemper.aspx>
2. Knight, James E. University of Nebraska, Lincoln. (1994, January). Jackrabbits and Other Hares. Retrieved September 20, 2017 from <https://digitalcommons.unl.edu/icwdmhandbook/54/>
3. Cornell Wildlife Health Lab. (2016, November 4). Canine distemper. Retrieved September 20, 2017 from <https://cwhl.ahdc.vet.cornell.edu/disease/canine-distemper>
4. Wyoming Game and Fish. (2017). Wyoming State Wildlife Action Plan pages III-7-1. Retrieved September 20, 2017 from <https://wgfd.wyo.gov/Habitat/Habitat-Plans/Wyoming-State-Wildlife-Action-Plan>



COYOTES

Ecosystem: everything that exists in a particular environment. An ecosystem includes living things, such as plants and animals, and things that are not living, such as sunlight and water.

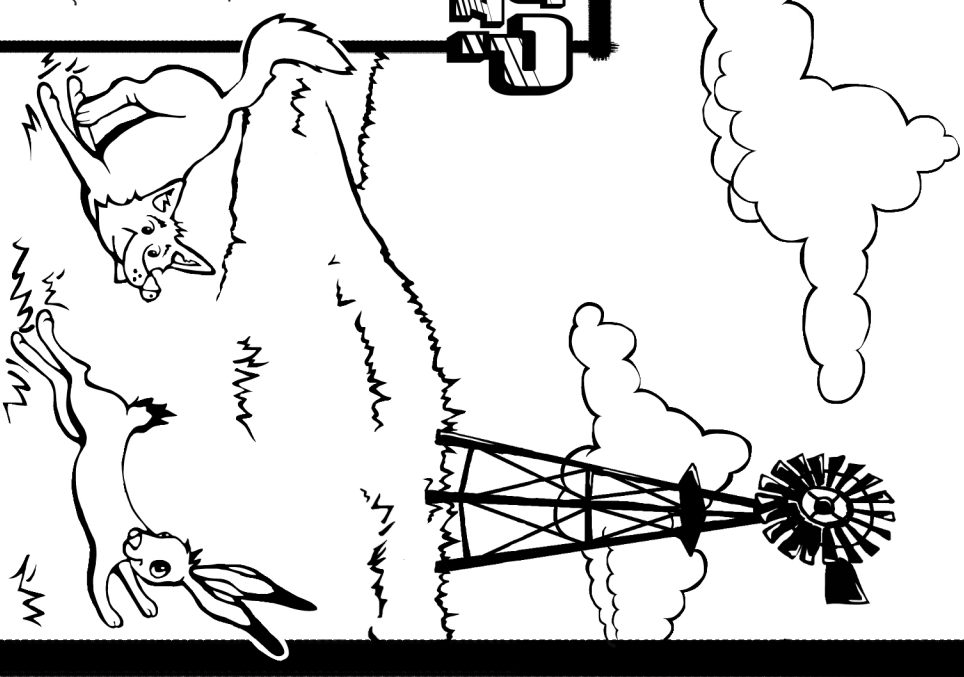


Coyotes and jackrabbits are two animals that have lived in Wyoming a long time. Coyotes are predators. That means they prey on other animals for food. The jackrabbits are prey. That means they are hunted by predators. They keep each other's population numbers in balance. This creates a healthy **ecosystem**.

1

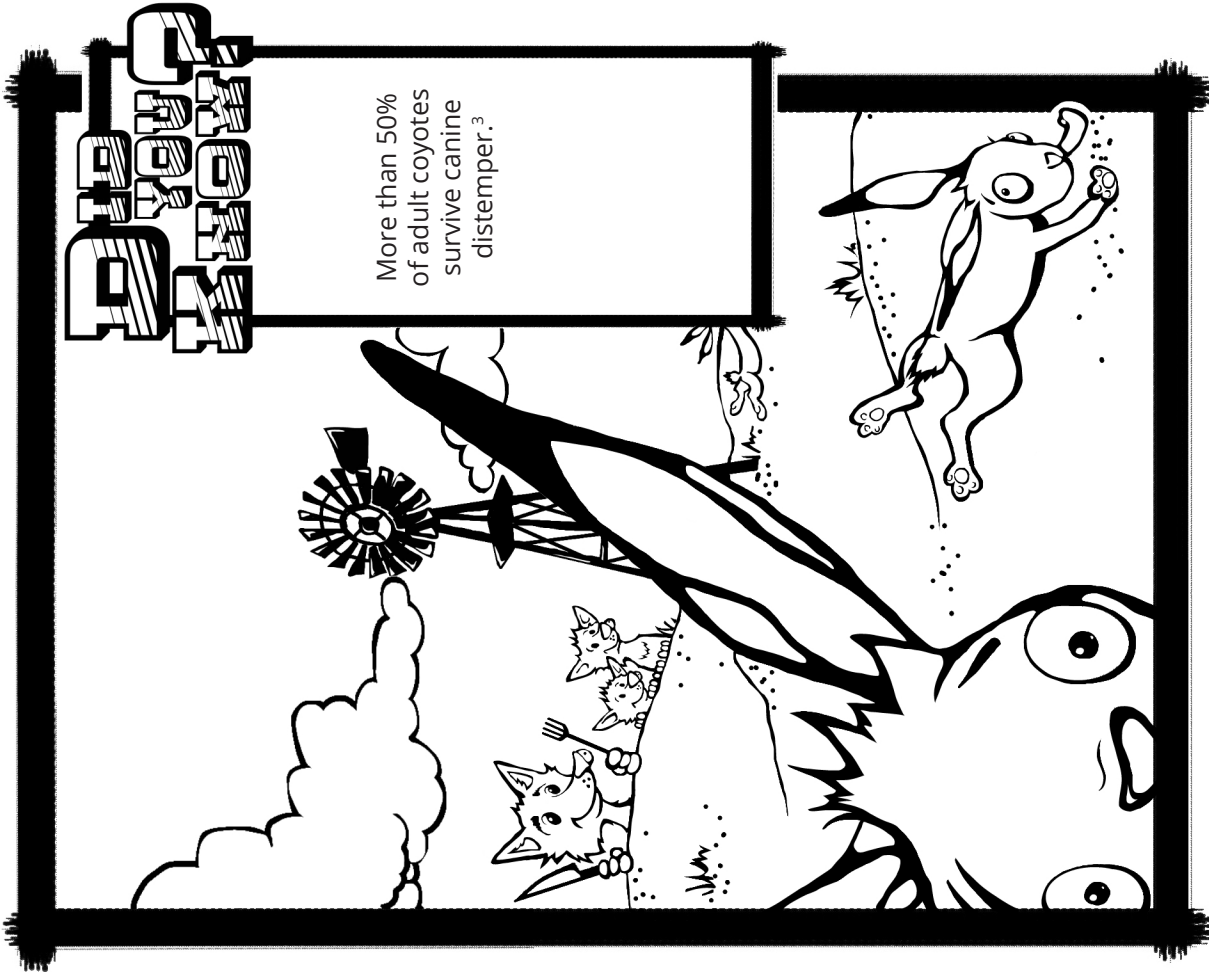
COYOTES

Most of Wyoming's rangeland is classified as either shortgrass prairie or mixed-grass prairie. Shortgrass prairie occurs mainly in the southeast corner of the state and extends south into Colorado.⁴

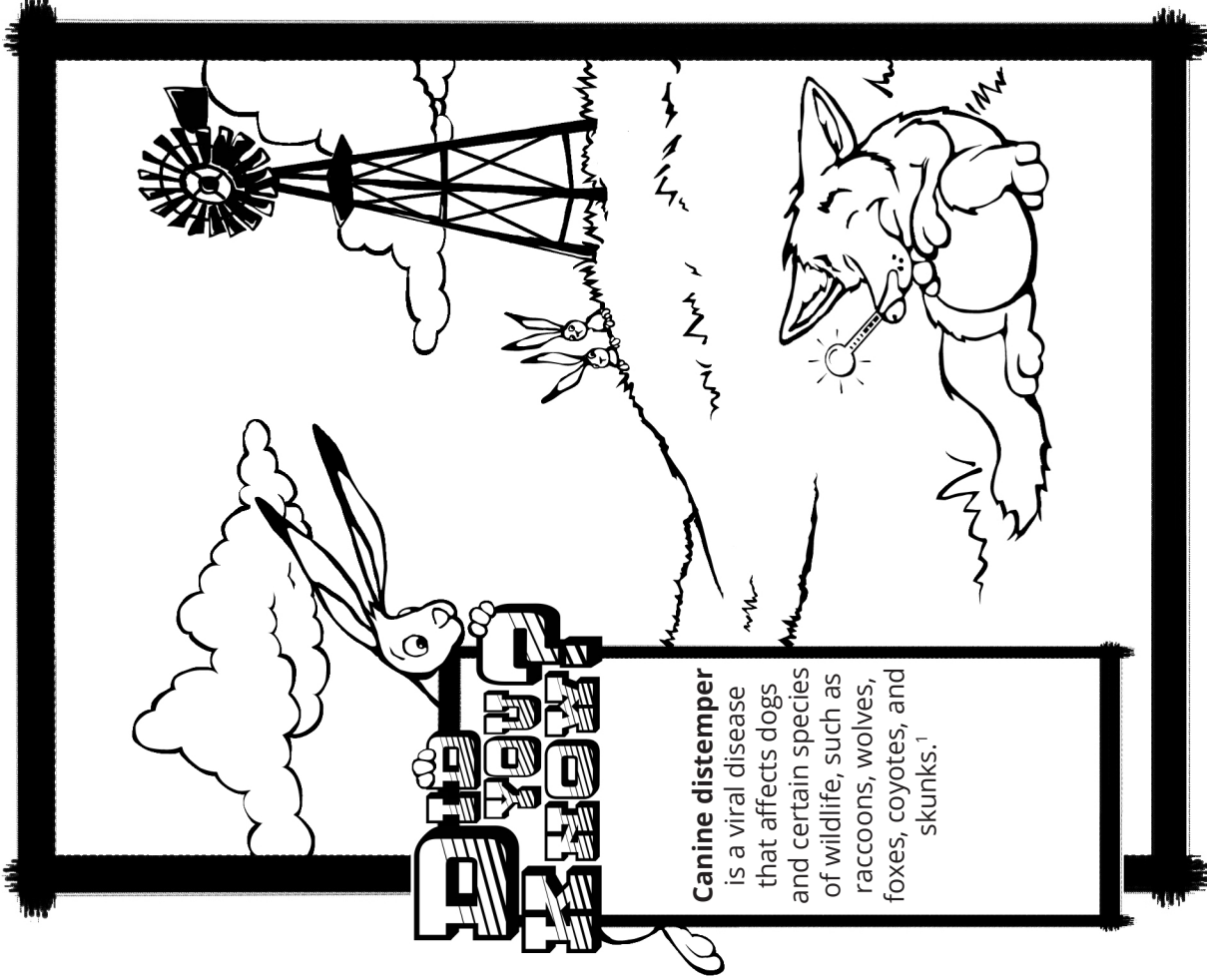


With the jackrabbit population in check, the rangeland thrived. Jackrabbits had enough to eat, and so did the coyotes, wildlife, and livestock. The ecosystem was in balance once again!

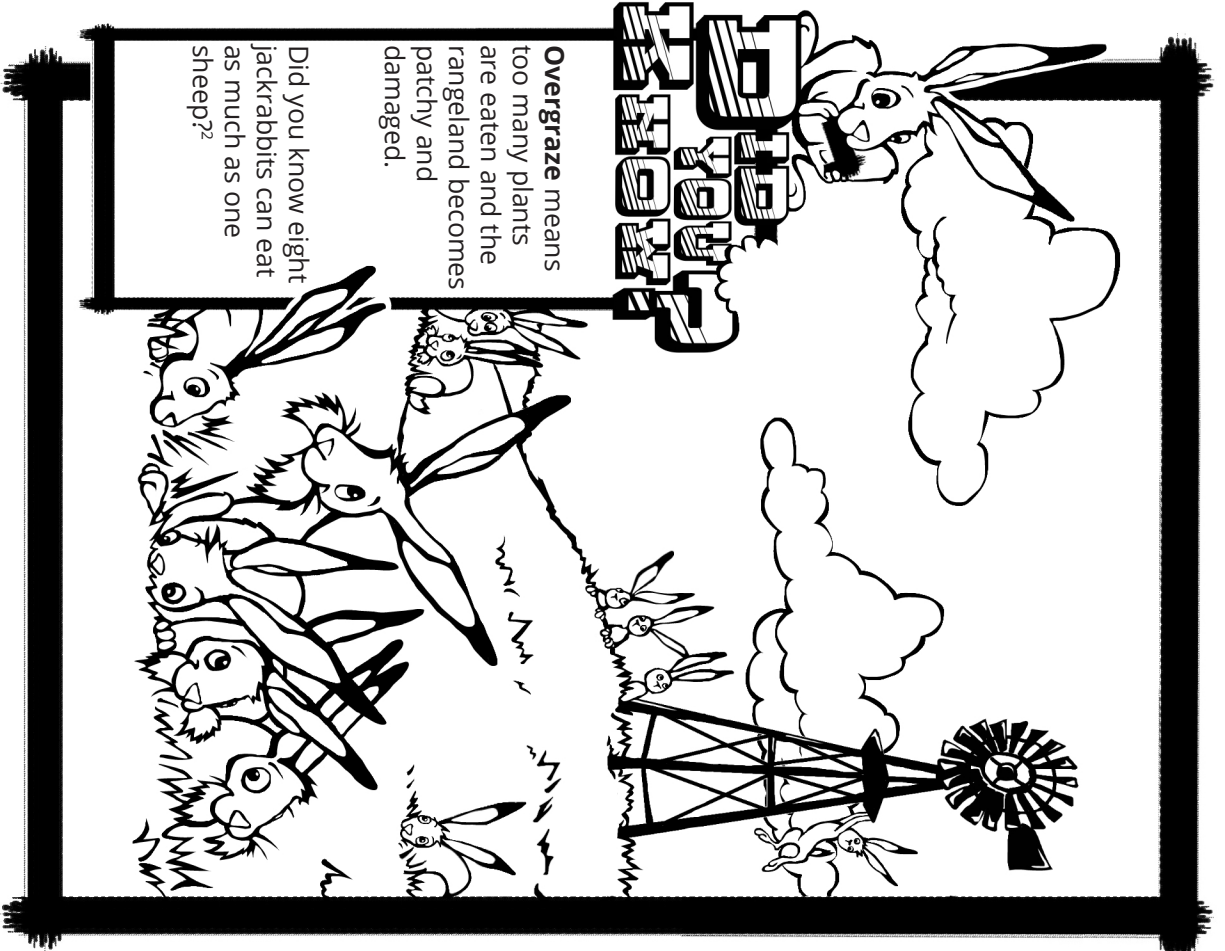
6



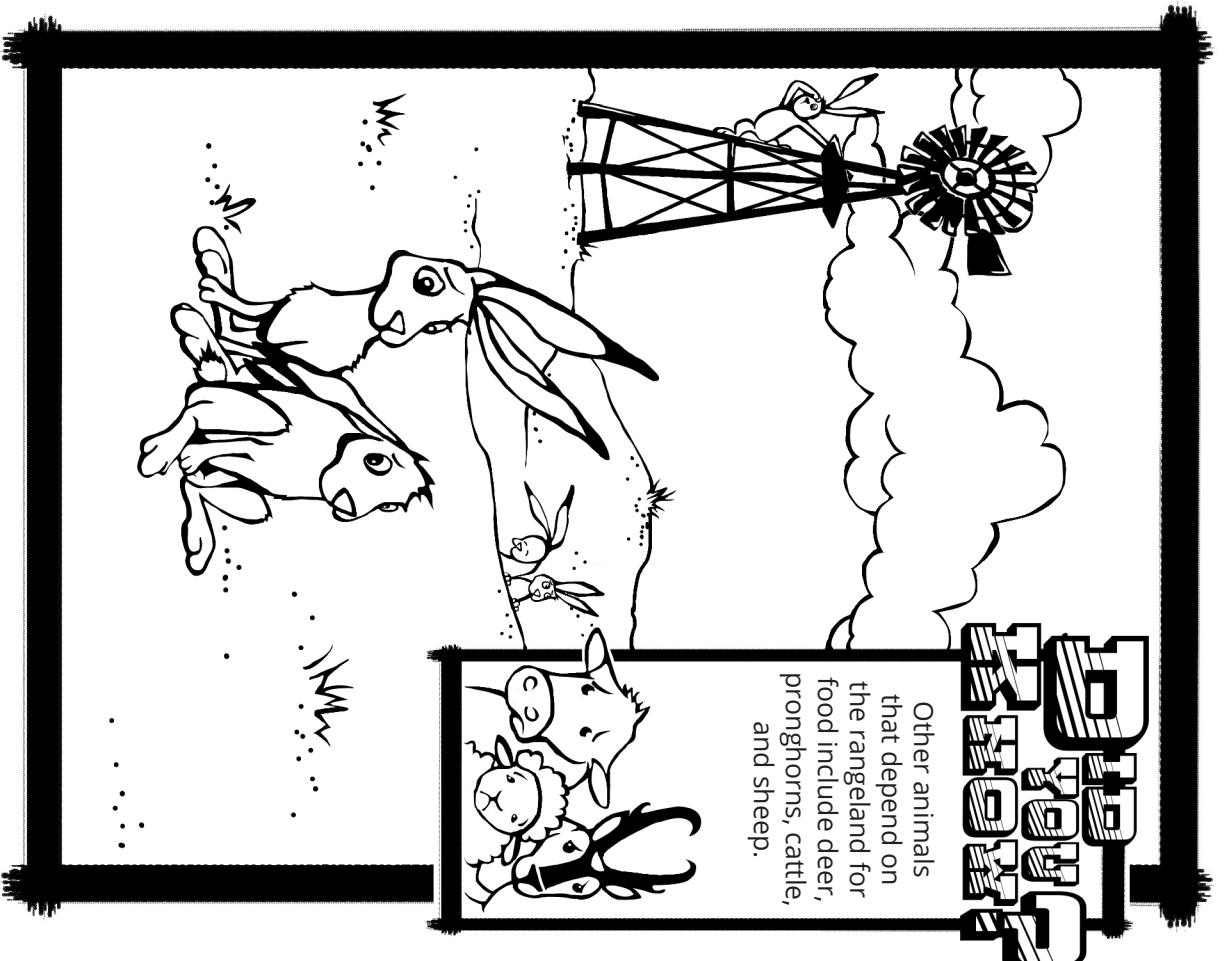
Eventually, most of the coyotes recovered from canine distemper. The surviving coyotes had a lot of jackrabbits to eat, so their population quickly grew.



One year, the coyote population decreased because of an illness called **canine distemper**. Without predators, the jackrabbit population grew larger than ever before!



All those jackrabbits were hungry, so they ate and ate and ate! In fact, they ate so much they **overgrazed** the rangeland.



Because the jackrabbits overgrazed, other animals weren't able to eat the grass they needed to survive. It was getting harder and harder for the jackrabbits, wildlife, and livestock to find food.

Cause and Effect Assessment Pages

Cause:

A rancher is facing a drought year.

Effects:

1. _____

2. _____

3. _____

Cause:

A rancher has noticed an increased number of predators on his ranch.

Effects:

1. _____

2. _____

3. _____



Cause and Effect Assessment Pages

Cause:

A rancher creates a plan for livestock grazing.

Effects:

1. _____

2. _____

3. _____



Ranch Stewardship

Note Taking Page

Managing Land

-
-

Managing Water

-
-

Managing Crops

-
-



Wyoming Stewards

Note Taking Page

Video #1

-
-
-

Video #2

-
-
-

Video #3

-
-
-

Video #4

-
-
-



Guest Speaker

Note Taking Page

Guest Name:

Job:

How is this person a steward of Wyoming agriculture?

Stewardship challenges:

-

-

-



Student Letter

(Heading)

(Greeting)

(Body)

(Closing)

(Signature)





