



Manatee Village Historical Park
1404 Manatee Avenue East
Bradenton, Florida 34208
Manatee County Historical Commission
& Manatee County Clerk of the Circuit Court
Historical Resources Division

Manatee Village Historical Park

Cow Hunter Activity Book

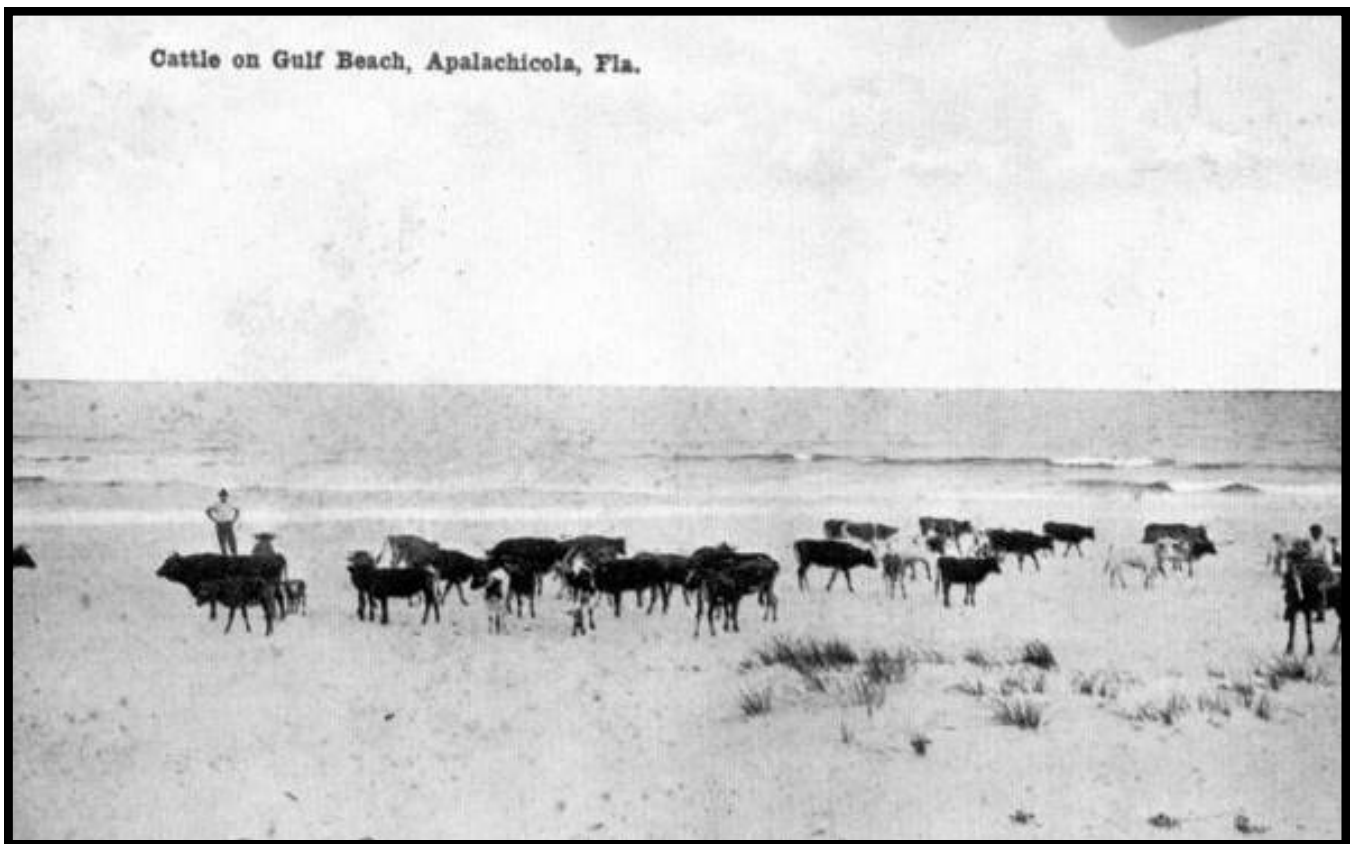


Image Courtesy of Florida Memory

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Pronunciation Guide

commensalism	kuh· men ·suh·li·zm
eradicate	ur· a ·duh·keit
mutualism	mew ·twal·li·zm
Parasitism	peh ·ruh·sai·ti·zm
Sterile	steh ·ruhl
Symbiosis	sim·bee· ow ·suhs



Use Your Imagination!

Directions. In the space below draw the image that comes to mind when you think of a **cow hunter**.

Not sure what a cow hunter is? That is okay! Draw your best guess.

Hint: what do the words **cow** and **hunter** make you picture in your mind?

A large empty rectangular box with a thin black border, intended for drawing a picture related to the prompt.



Use Your Imagination!

Directions. Pretend it is the year 1880. What does Florida look like? Use the space below to draw what you think the Florida landscape looked like in 1880.

A large empty rectangular box with a black border, intended for drawing the Florida landscape in 1880.



Cattle Ranching & Cow Hunters

What do you imagine when you think about Florida? Do you picture sunny beaches? What about a theme park or even some orange trees? These are all **iconic** images of our state.

Another iconic image of Florida you might not know about is **cattle ranching**. Cattle ranching is the practice of raising and **herding** cows across a large amount of land.

Fun Fact!

In the 1700s, a Seminole leader was nicknamed Cowkeeper!

How did cows get to Florida? Experts think the first cows were brought here by Spanish explorers in 1521. That is almost 500 years ago!

Raising cattle became an important way of life for many people, including the Seminole Tribe and the settlers who moved to Florida in the 1800s.

A **cow hunter**, sometimes called a Cracker cowboy, is a person who finds and herds Florida cattle. Does the cow hunter you imagined on page one look anything like the one pictured to the right?

Why were cow hunters needed to find cattle? Florida law did not require ranchers to have a fence. The “no fence” law meant that cows could roam freely across the state.

Cow hunters rode horses across Florida scrub land, marshes, and even beaches to herd cattle.

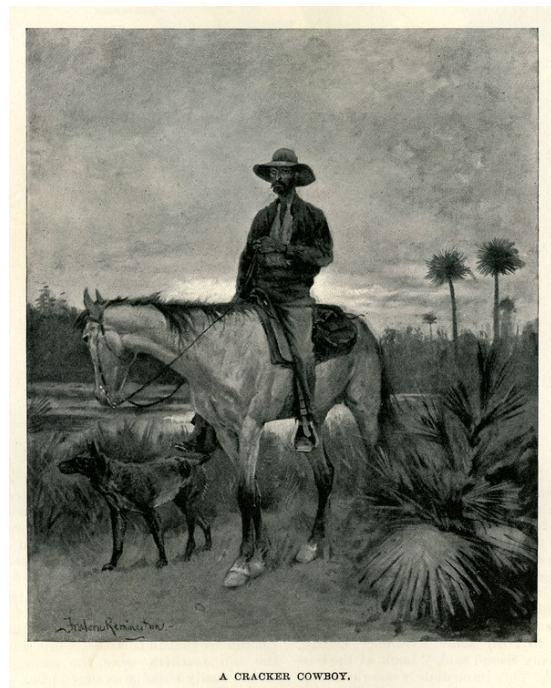


Image Courtesy of Florida Memory

Fun Fact!

When cow hunters snapped their whips overhead it made a loud cracking sound, which is where the name “cracker” comes from.

How did cow hunters know they weren't taking cattle that belonged to someone else? Each cow had a brand. **Cattle brands** are unique symbols used to show ownership.

Once cow hunters rounded up the correct cattle they would take them to be **exported**. Most cattle was shipped out of the state by boat until 1908 when they were shipped out by train.

Fun Fact!
A new law was created in 1949 which required ranchers to fence in their cattle.

Image Courtesy of Florida Memory



Sometimes it could be dangerous to be a cow hunter. They traveled in all kinds of weather, including extreme heat and rain. They might also encounter wildlife (like panthers) or cattle thieves. Cattle thieves, also called **cattle rustlers**, stole cattle.

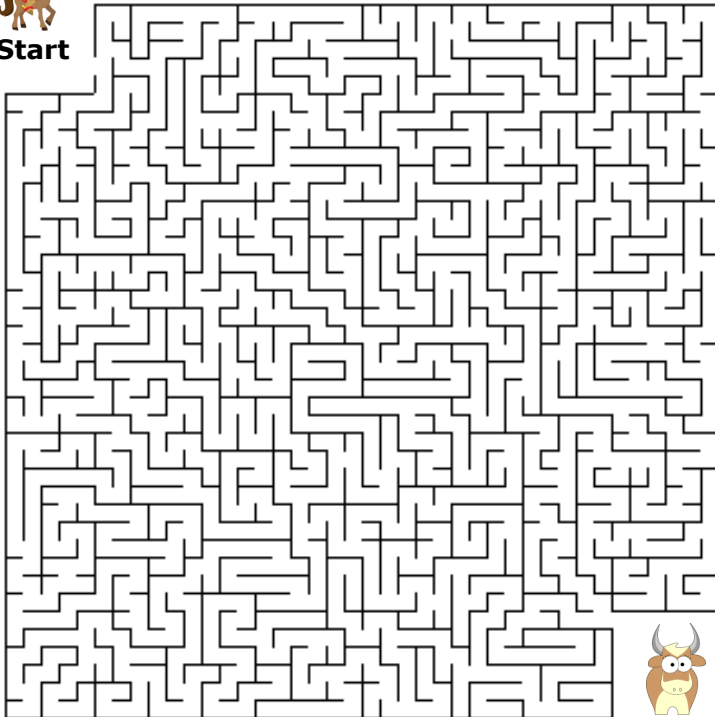
Cattle ranching is still practiced in Florida today and there are over 886,000 heads of cattle in our state*.

**Source: The Florida Beef Council*

Cow Hunter Maze



Start



End

Directions. Help the Cow Hunter find the cow.

Created by [Puzzlemaker](#) at [DiscoveryEducation.com](#)





Be a Detective!



Image Courtesy of Hathi Trust

Directions. Examine the image on this page. Use your observations to answer the questions below.

1. What's going on in this picture?

2. What do you see that makes you say that?

3. What more can you find?



Be a Detective!

Image Courtesy of Hathi Trust



A BIT OF COW COUNTRY.

Directions. Examine the image on this page. Use your observations to answer the questions below.

1. What's going on in this picture?

2. What do you see that makes you say that?

3. What more can you find?



Science Corner:

Symbiosis

Did you know that living things in the same environment can form a relationship with each other? The close relationship between living things is called **symbiosis**.



There are three types of symbiotic relationships; they are **mutualism**, **commensalism**, and **parasitism**.

Mutualism



Image Courtesy of New England Complex Systems Institute

Mutualism: both living things benefit from this relationship.

An oxpecker lands on a zebra and eats the ticks living on the zebra. The oxpecker benefits by getting food and the zebra benefits by being free of ticks.

Commensalism: only one living thing benefits.

Example: remora fish and sharks.

The remora fish will attach itself to a shark and eat any leftover food that the shark doesn't eat. The remora fish benefits by getting food. This relationship does not hurt the shark.

Commensalism



Image Courtesy of Britannica

Parasitism



Image Courtesy of Britannica

Parasitism: only one living thing benefits while the other living thing is harmed by the relationship.

Example: ticks and dogs.

Ticks live on dogs in order to feed on their blood. The tick benefits by getting food and the dog is harmed because the tick can cause pain and even disease.



Relationship Status



Directions. Identify the type of symbiotic relationship between each living thing pictured below. State whether the relationship is an example of **mutualism**, **commensalism**, or **parasitism**.



Cattle & Screwworm Larvae

A screwworm (a type of fly) lands on a cow and lays eggs in an open wound on the cow. The screwworm's larvae (pictured) eat the cow's skin and muscle.

Relationship: _____



Cracker Cattle & Egrets

When cattle move across the field they stir up insects from the earth. As a result, foraging for food is easier for egrets (a type of bird).

Relationship: _____



Saw Palmetto & Toads

A toad moves under the saw palmetto and eats a cricket. If the cricket hadn't been eaten by the toad it would have damaged the leaves of the saw palmetto.

Relationship: _____



Saw Palmetto & Gopher Tortoise

The saw palmetto produces fruit that the gopher tortoise eats. As the gopher tortoise travels, it passes the plant seeds in its poop and from the seeds grows more saw palmetto.

Relationship: _____



Gopher Tortoise & Toads

The gopher tortoise digs holes that later get used by toads and other animals like opossums and snakes.

Relationship: _____

Check out the wanted poster below to learn about why early cattle ranchers feared the screwworm.

WANTED



Adult Screwworm Fly

AND



Screwworm Larvae

SCIENTIFIC NAME: *Cochliomyia hominivorax*

AKA: New World Screwworm

CRIMES COMMITTED:

- Invasive species: not native to an ecosystem and it can harm the environment, economy, or human health
- Invaded multiple states by hitching a ride on livestock moving from the American southwest to Florida and other southeastern states
- Infested cattle in Florida by laying eggs in open wounds
- Hatched larvae ate the skin and muscle of living cattle
- Increased cattle deaths
- Repeat offender: larvae became adult flies and looked for new cattle to lay eggs in

REWARD FOR CAPTURE:

- Healthy cattle
- Profit for cattle industry
- Food for humans

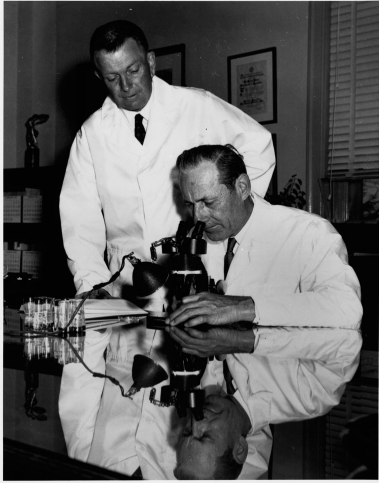
IF SPOTTED CONTACT:

The United States Department of Agriculture



Science in Action: Eradication

Image Courtesy of the U.S. Department of Agriculture



Scientists working on screwworm eradication

Did you know screwworm outbreaks were so deadly that scientists figured out a way to **eradicate** (eliminate) screwworms in the 1950s?

A scientist named Dr. Edward F. Knipling thought that screwworms could be eliminated if large numbers of **sterile** (unable to reproduce) male flies were put in the wild. If wild female flies mated with sterile male flies then the eggs laid in cattle wounds wouldn't hatch. When wild flies died there were no new flies to replace them. This eradication method is called the Sterile Insect Technique (SIT).

In the 1950s, Knipling and other scientists began testing the Sterile Insect Technique. They used radiation to sterilize male screwworm

Scientific Inquiry:

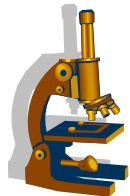
Be A Science Detective

Directions. Scientists make observations about the world around us. Pretend you are a scientist. Find a comfortable place to sit inside your house or in your backyard. Answering the questions below, make some observations and form a hypothesis.

Hint: A hypothesis is a statement that provides a possible explanation for a scientific problem.

1. Write down some observations. What do you see, hear, or smell? Is it warm or cold? Does anything seem out of place? Has a particular object caught your eye?

Example: I observed that my dining room is darker than normal.



Scientific Inquiry: *Be A Science Detective*

2. Pick one of your observations and ask some questions about it. Questions should ask “how” or “why.”

Example: I ask myself “how did the room get darker?”

3. Make three more observations that help answer the question you asked in #2.

Example: I observed that only one of my lightbulbs is out.

4. Once you think you have an answer to your question write your answer down. This is called your hypothesis. Your hypothesis is a confident statement based on your observations and it provides a possible explanation for a scientific problem.

Example: My hypothesis is that my dining room is darker than normal because one of my lightbulbs blew out.

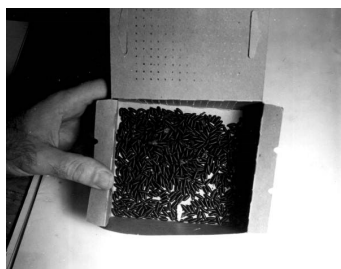


Image Courtesy of Florida Memory

Image, left: This box of sterile screwworms was released on a ranch in Sebring, FL as part of a screwworm eradication plan.

Cow Hunter Crossword

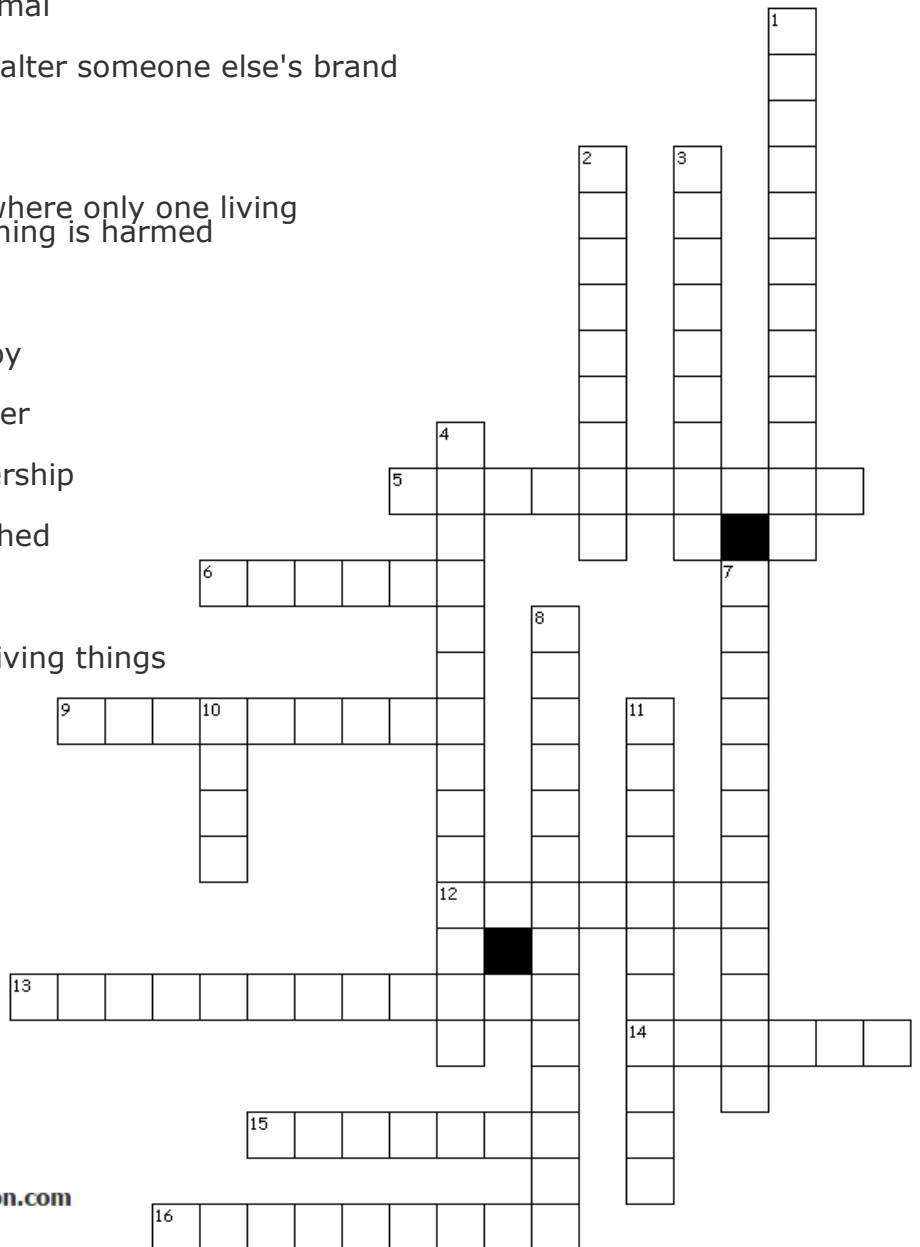
Directions. Use the clues to fill in the crossword puzzle.

Down

1. a type of symbiotic relationship where only one living thing benefits
2. a type of symbiotic relationship where both living things benefit
3. a term that means to eliminate
4. the practice of raising and herding cows
7. a piece of iron with the brand symbol on one end
8. another term for cattle thieves
10. a large group of one type of animal
11. a tool used by cattle rustlers to alter someone else's brand

Across

5. a type of symbiotic relationship where only one living thing benefits and the other living thing is harmed
6. to send goods to another place
9. another term for a cracker cowboy
12. to keep or move animals together
13. unique symbols that show ownership
14. a term that means well-established
15. unable to reproduce
16. the close relationship between living things



Created by [Puzzlemaker](http://Puzzlemaker.com) at DiscoveryEducation.com



Cattle Branding

The act of branding has been around for thousands of years. Some of the earliest examples of branding can be seen in Ancient Egyptian hieroglyphics.



Example of branding irons

Each cattle rancher had a cattle brand. **Cattle brands** are unique symbols used to show ownership.

Cattle are branded with a **branding iron** (a piece of iron with the brand symbol on one end). In order to brand the cow, a person heats up the branding iron and places the symbol end onto the cow's hip. Brand symbols can include letters, numbers, shapes, and other unique images.

Did you know brand symbols can also be lazy or crazy? If you rotate a symbol it is "lazy" and if you flip a symbol upside down it is "crazy."

A brand can even have wings or feet! If a brand has wings it is considered "flying" and if a brand has feet it is considered "walking."

Can you read these brands?

Directions. Match up each brand by drawing a line to the correct description.



Crazy A

Flying A

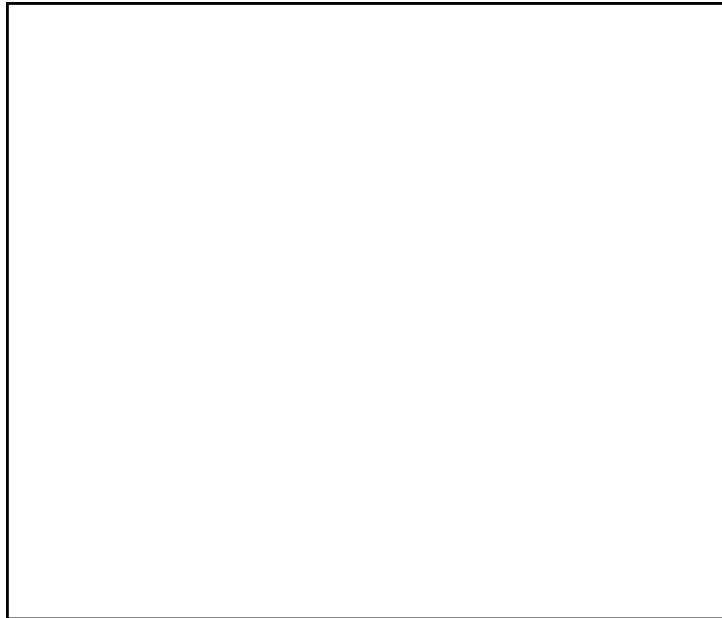
Lazy A

Walking A



Use Your Imagination!

Directions. Pretend you are a cattle rancher. Use the space below to create your own brand symbol.



Brand Examples



Image Courtesy of Florida Memory

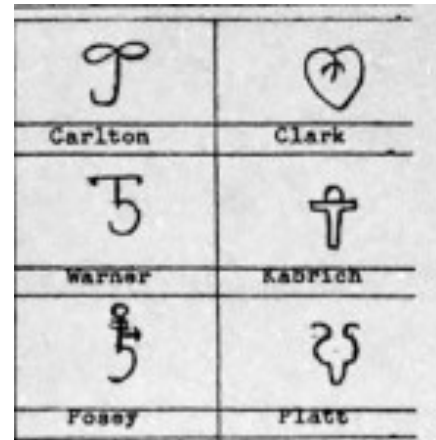


Image Courtesy of Marks and Brands Record Books of Manatee County

Cattle Rustling



Example of running irons

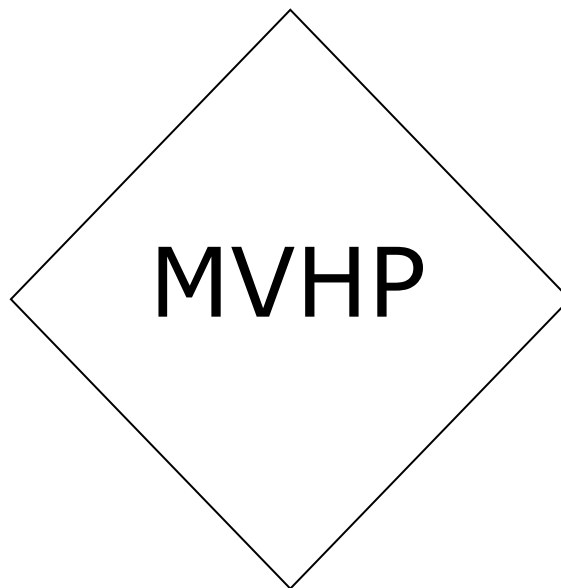
A **cattle rustler** is someone who steals cattle. Cattle rustlers would use a **running iron** to change the shape of someone else's brand.

Altering someone's brand and stealing their cattle was considered a serious crime.



Use Your Imagination!

Directions. Pretend you are a cattle rustler. Alter the rancher's brand below by adding new lines, wings, feet, or other symbols.



Cattle Brand Memory Game

Directions. Cut out all of the cards. Place the cards cow -side up on a flat surface. Mix the cards up. Each player takes turns flipping up two cards. If the cards match remove them from the playing area. If the cards don't match flip them back down. The game ends when there are no more cards in the playing area. The player with the most matches at the end of the game wins.



Image Courtesy of Florida Memory



Image Courtesy of Florida Memory



Image Courtesy of Florida Memory



Image Courtesy of Florida Memory



Image Courtesy of Florida Memory

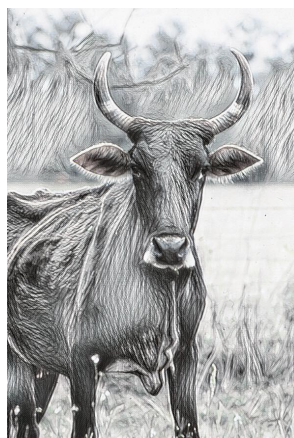


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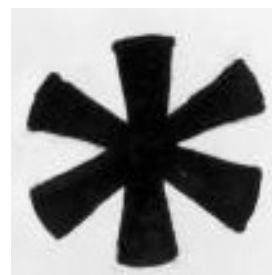


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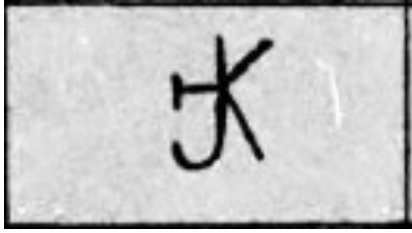


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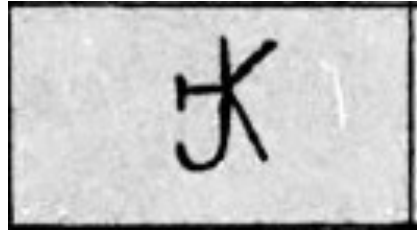


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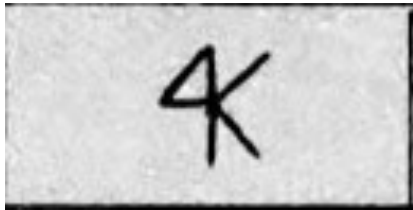


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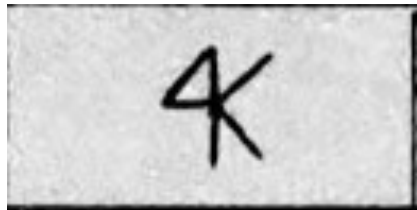


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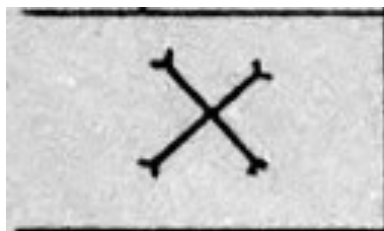


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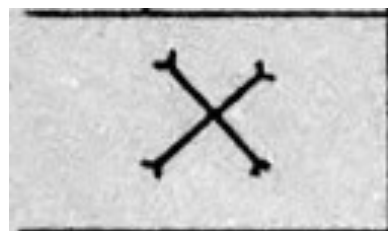


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Cow Hunter Activity Book

Created by Manatee Village staff
with resources from:

- ⇒ **Art Museum Teaching:** VTS questions
- ⇒ **Britannica:** images for symbiosis lesson
- ⇒ **Britannica Kids:** symbiosis lesson, scientific inquiry activity
- ⇒ **Conservancy of Southwest Florida:** symbiosis activity
- ⇒ **Discovery Education:** cow hunter maze and cow hunter crossword
- ⇒ **The Florida Beef Council:** cattle ranching statistics
- ⇒ **Florida Memory:** images for cover, cattle brand memory game, cattle ranching & cow hunter lesson, symbiosis activity, scientific inquiry activity, and Spanish cattle brand examples
- ⇒ **Hathi Trust:** images for VTS questions
- ⇒ **Marks and Brands Record Books of Manatee County:** Manatee County brands
- ⇒ **New England Complex Systems Institute:** symbiosis lesson and image for symbiosis lesson
- ⇒ **Science Education Resource Center at Carlton College:** scientific inquiry activity
- ⇒ **U.S. Department of Agriculture:** invasive species and SIT lessons; images for symbiosis activity, science in action image, and images for wanted poster



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Cow Hunter Activity Book

Answer Key



Use Your Imagination!

The activities on page 1 and 2 asked you to use your imagination to draw what you think a cow hunter is and what you think the Florida landscape looked like in 1880.

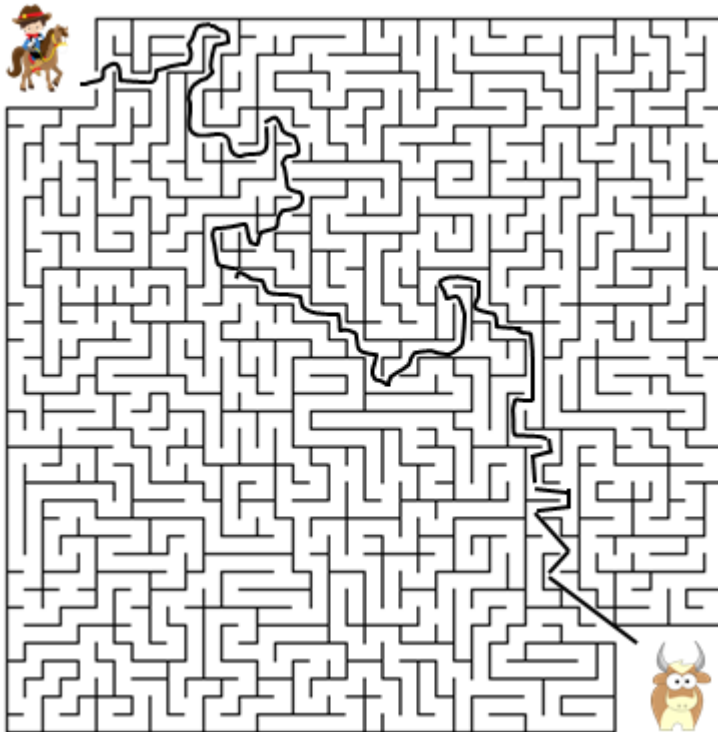
Cow hunter drawings might include a cow boy, cattle, or horses.

Landscape drawings might include Florida scrub land, weather images, wild animals, or people in a horse drawn buggy.

For these activities there is no right or wrong answer. The goal was for you to think creatively and have a chance to create some art.

Cow Hunter Maze

Activity on page 4



Created by [Puzzlemaker](#) at [DiscoveryEducation.com](#)



Be a Detective!

The activities on pages 5 and 6 asked you to examine two historical images and answer some questions based on your observations.

Since your answers are based on your observations there are no right or wrong answers for this activity.



Relationship Status



Activity on page 8

Cattle & Screwworm Larvae

A screwworm (a type of fly) lands on a cow and lays eggs in an open wound on the cow. The screwworm's larvae (pictured) eat the cow's skin and muscle.

Relationship: Parasitism

Cracker Cattle & Egrets

When cattle move across the field they stir up insects from the earth. As a result, foraging for food is easier for egrets (a type of bird).

Relationship: Commensalism

(There is some debate among scientists that this relationship is an example of **mutualism**—the egret might rest on the cow's back and eat parasites that would otherwise harm the cow. In this case the egret benefits by getting food and the cow benefits by being free of harmful bugs.)

Saw Palmetto & Toads

A toad moves under the saw palmetto and eats a cricket. If the cricket hadn't been eaten by the toad it would have damaged the leaves of the saw palmetto.

Relationship: Commensalism

Saw Palmetto & Gopher Tortoise

The saw palmetto produces fruit that the gopher tortoise eats. As the gopher tortoise travels around the ecosystem, plant seeds pass through the tortoise, and more saw palmetto grows.

Relationship: Mutualism

Gopher Tortoise & Toads

The gopher tortoise digs holes that later get used by toads and other animals like opossums and snakes.

Relationship: Commensalism

Scientific Inquiry:

Be A Science Detective

The activity on pages 10 and 11 asked you to observe the world around you and develop a hypothesis based on your observations.

Answers will vary.

Cow Hunter Crossword

Activity on page 12

Down

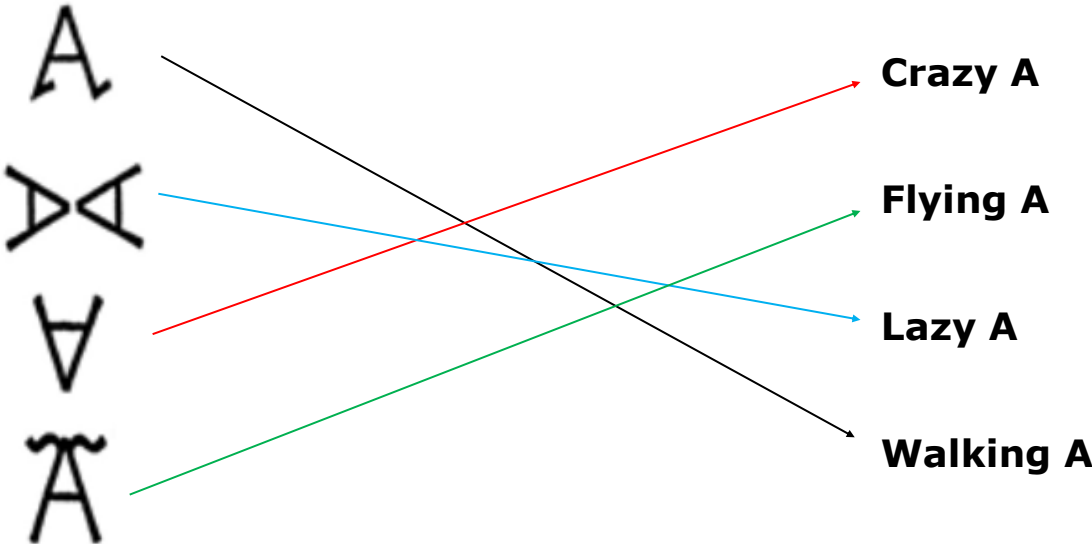
1. **commensalism:** a type of symbiotic relationship where only one living thing benefits
2. **mutualism:** a type of symbiotic relationship where both living things benefit
3. **eradicate:** a term that means to eliminate
4. **cattle ranching:** the practice of raising and herding cows
7. **branding iron:** a piece of iron with the brand symbol on one end
8. **cattle rustlers:** another term for cattle thieves
10. **herd:** a large group of one type of animal
11. **running iron:** a tool used by cattle rustlers to alter someone else's brand

Across

5. **parasitism:** a type of symbiotic relationship where only one living thing benefits and the other living thing is harmed
6. **export:** to send goods to another place
9. **cow hunter:** another term for a cracker cowboy
12. **herding:** to keep or move animals together
13. **cattle brands:** unique symbols that show ownership
14. **iconic:** a term that means well-established
15. **sterile:** unable to reproduce
16. **symbiosis:** the close relationship between living things

Can you read these brands?

Activity on page 13



Use Your Imagination!

The activity on page 14 asked you to create your own brand symbol. There is no right or wrong answer for this activity.

The activity on page 15 asked you to alter a brand symbol. There is no right or wrong answer for this activity.