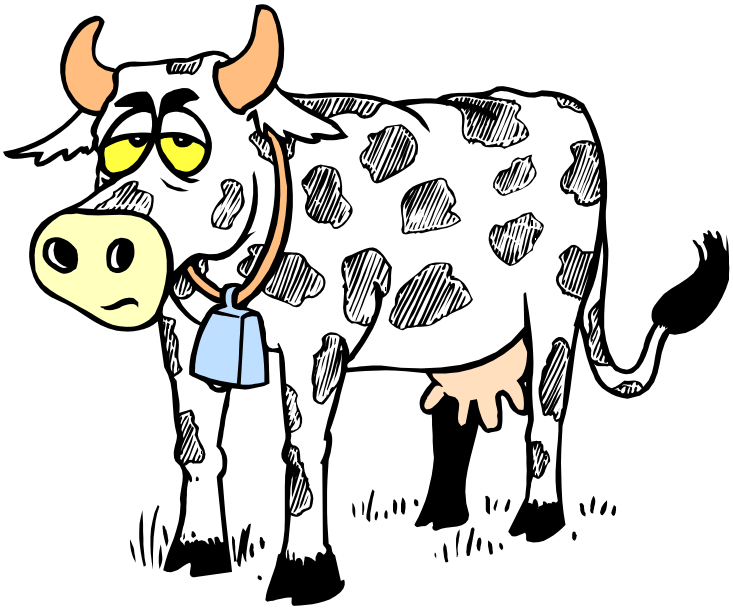
National Agricultural Library

All about Dairy Cows



Grade Level: Elementary

US Department of Agriculture
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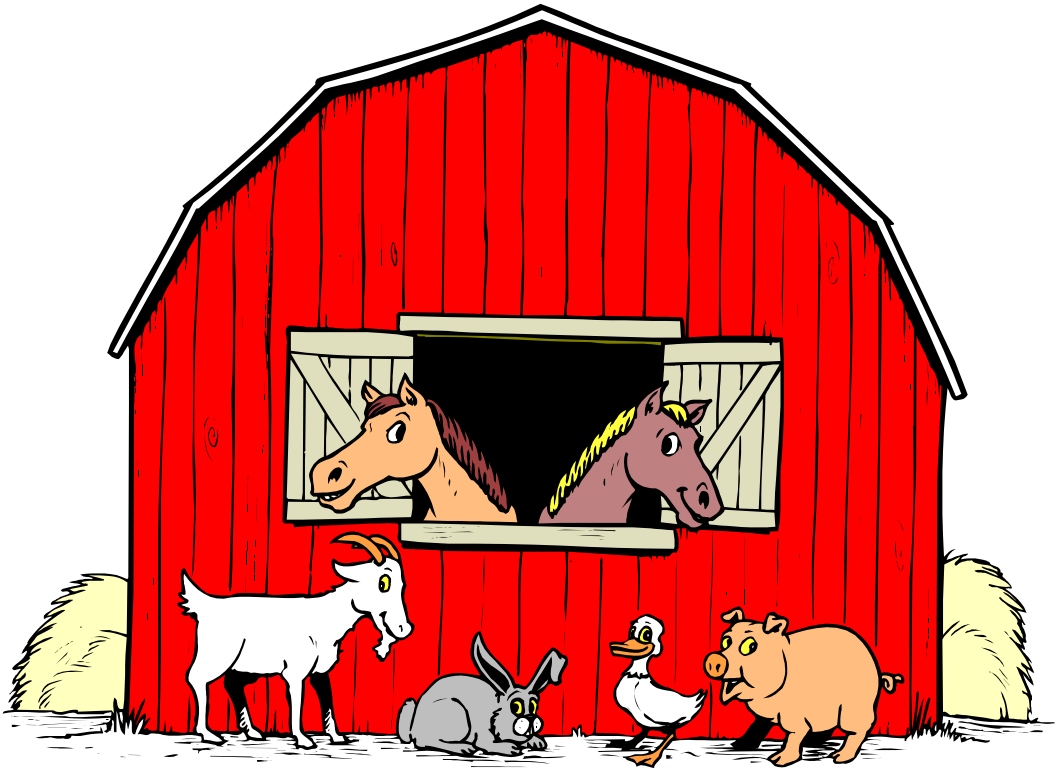
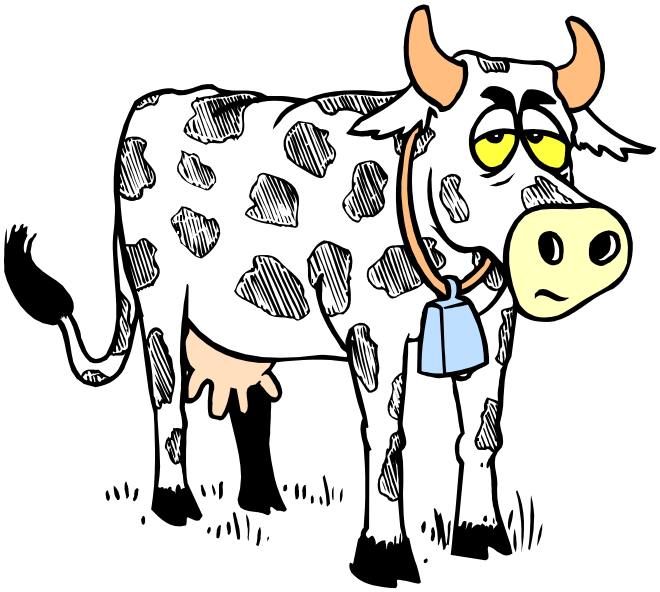
Who started dairy farming?

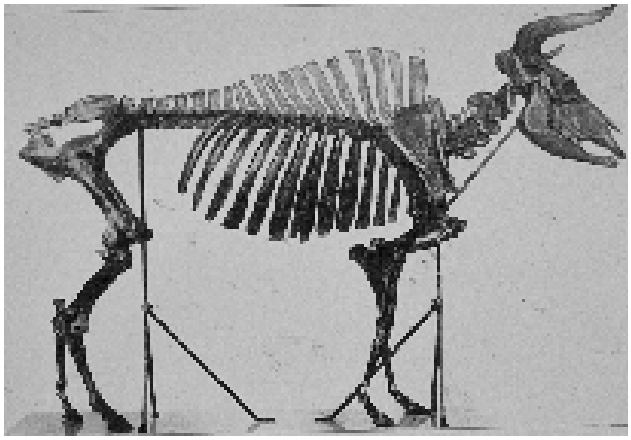




No one really knows how long ago people started milking cows, or how they discovered that milk was good for us to drink.

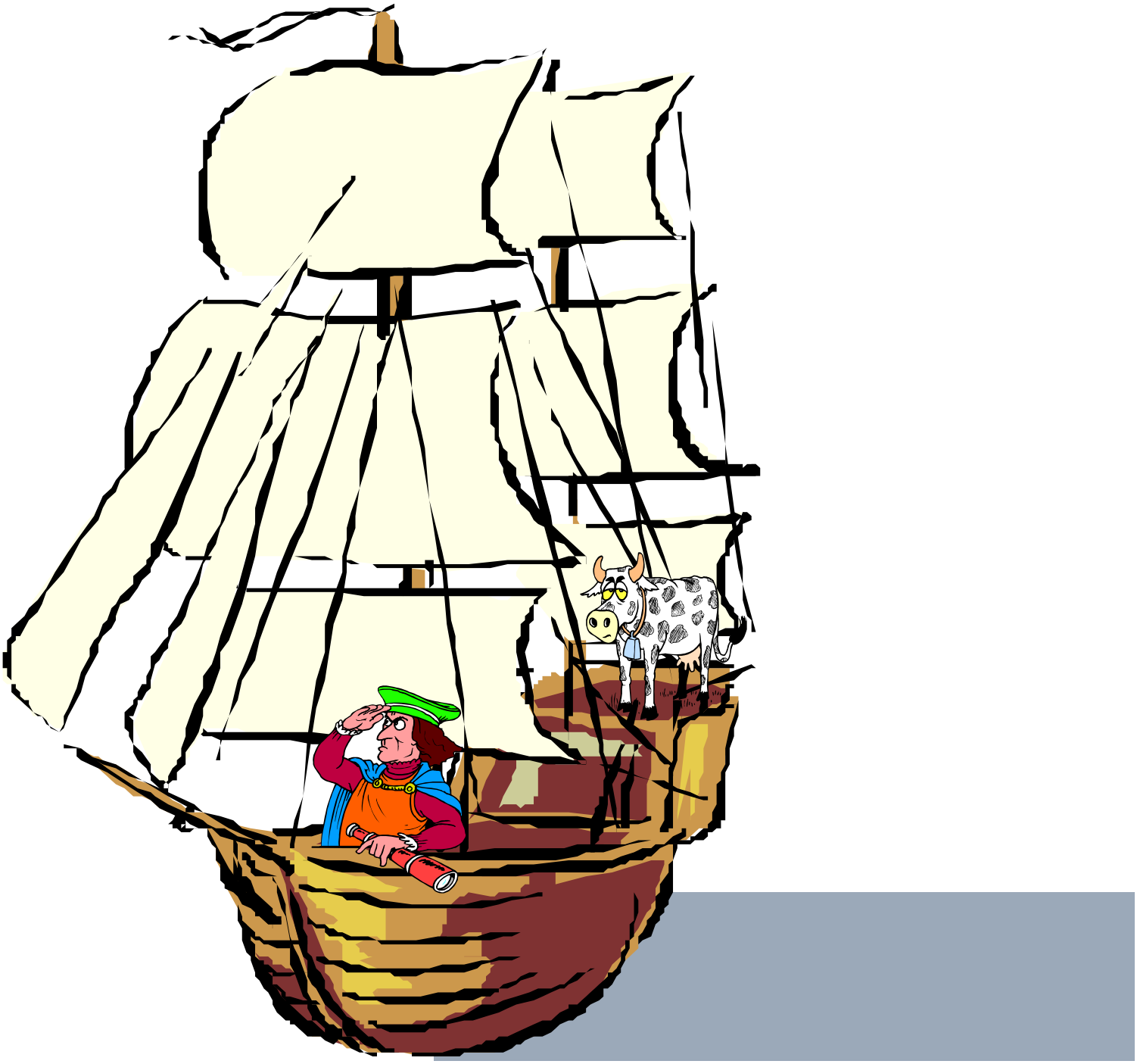
At least 10,000 years ago, cave men raised dairy cattle. Their cattle were called auroch.

Auroch



Auroch skeleton

Cows are not native to America. Columbus brought cattle with him on his second voyage to the New World.



When the Pilgrims made their voyages, it became English law that each ship coming to the new world had to carry one cow for each five passengers.

The ships's captain would then sell the cattle and that would bring the captain a little income.

In 1843, a New Yorker by the name of Peter Dunn purchased a cow from a sea captain. The cow was sick with a disease called Contagious Bovine Pleuropneumonia (CBPP).

That cow made the other cows sick. A large number of cows died. This happened three different times over a 40 year period.

USDA was responsible for getting rid of the disease in the 1890's.

What kinds of cows make milk?

The large, black and white Holstein is the most common milk producing cow. Other breeds include Guernseys, Jerseys, Brown Swiss, Ayrshires, and Milking Shorthorns.

Ayrshire

Guernsey

Jersey

Brown Swiss

Milking Shorthorn

Holstein

Activity: Counting Cows

The next time you travel along a highway try to match the pictures and count the dairy cows that you see.

Ayrshire:_____

Guernsey:_____

Jersey:_____

Brown Swiss:_____

Milking Shorthorn:_____

Holstein:_____

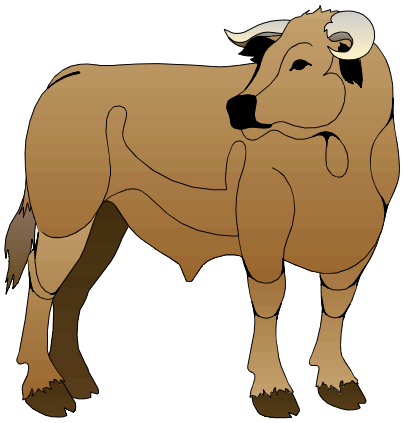
How can you tell Holstein cows apart?

A Holstein's spots are like a fingerprint or a snowflake. No two cows have exactly the same pattern of spots.

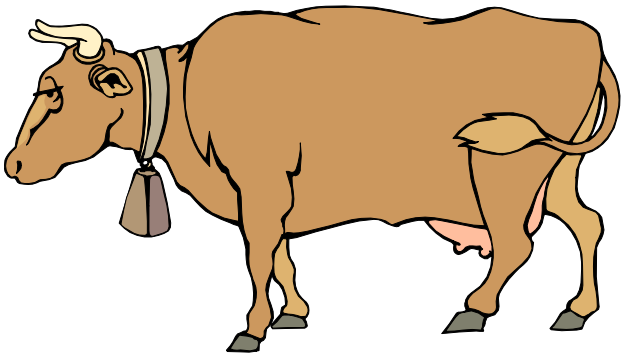
Cow Families

A female cow younger than 3 years old that has not had a baby is termed a heifer; a male cow is called a bull; and a castrated male is a steer.

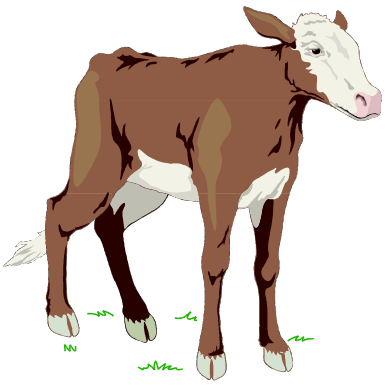
A dairy cow is a female that has given birth to a baby. That baby is called a calf.



Bull, if castrated Steer

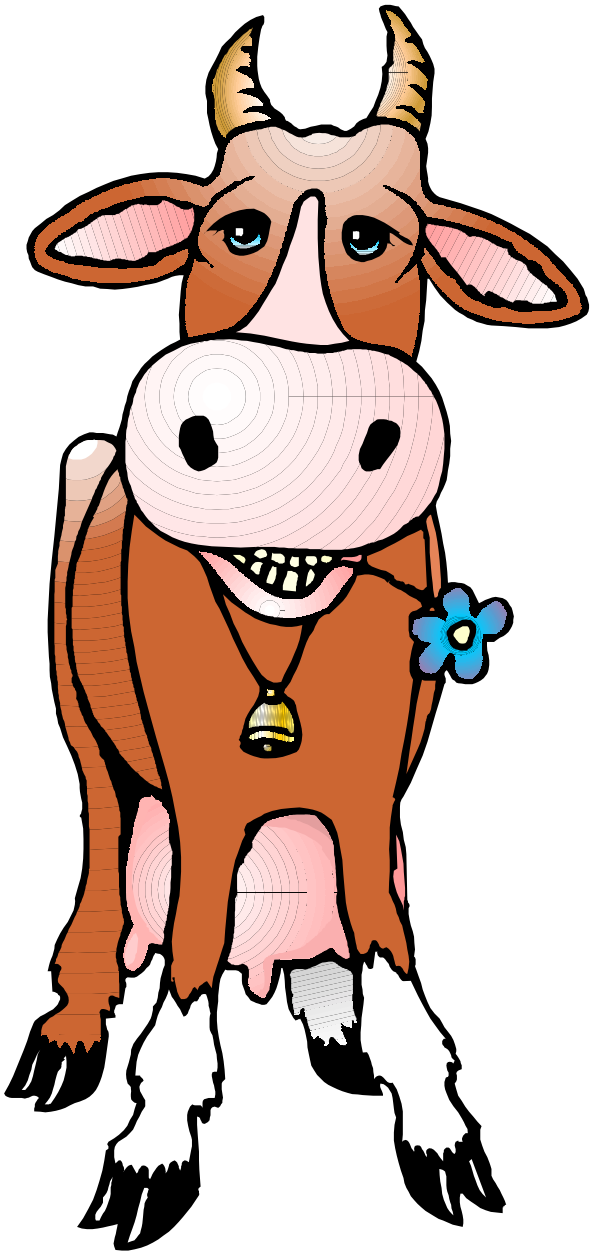


Dairy Cow



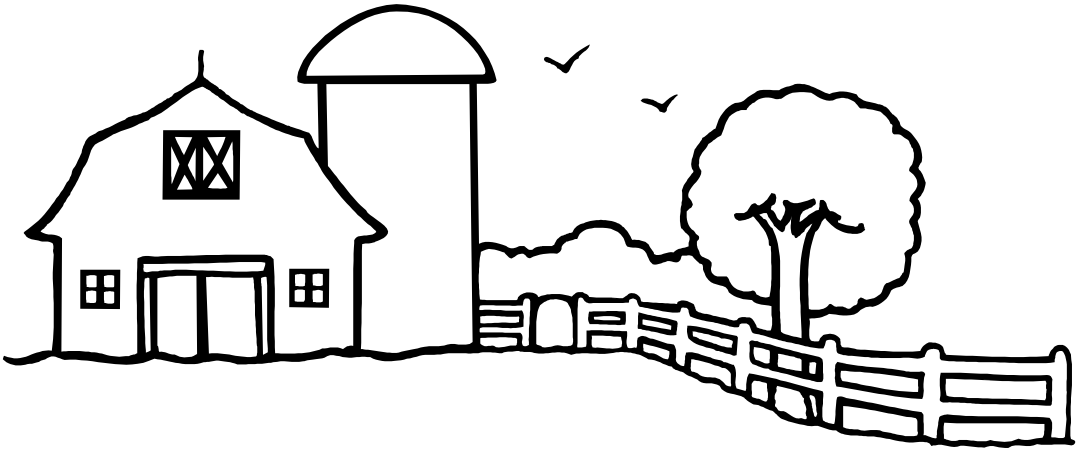
Calf

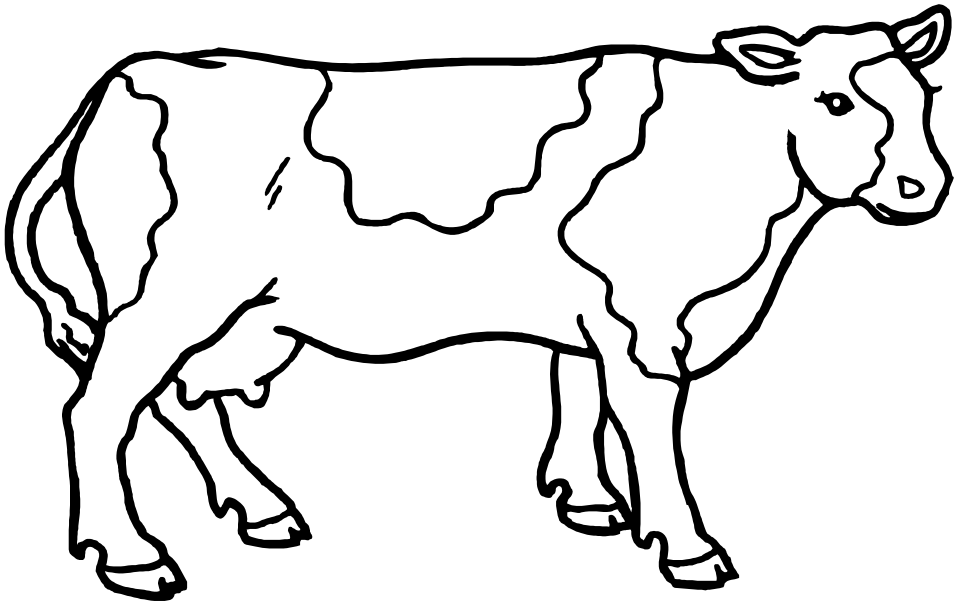
How much milk does a cow produce?



The average cow produces about 19,825 pounds of milk each year.

That's 2,305 gallons of milk a year or about 8 gallons of milk every day of her milking period. That’s enough for 128 people to have a glass of milk every day!



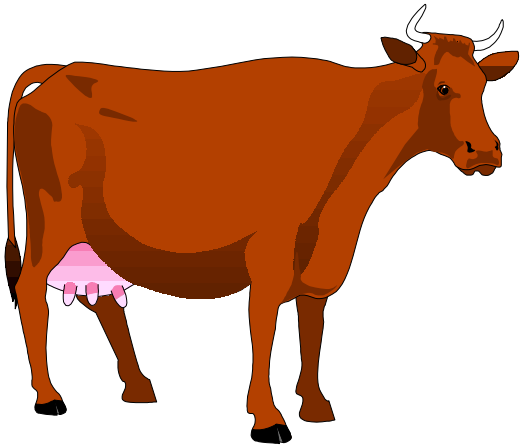


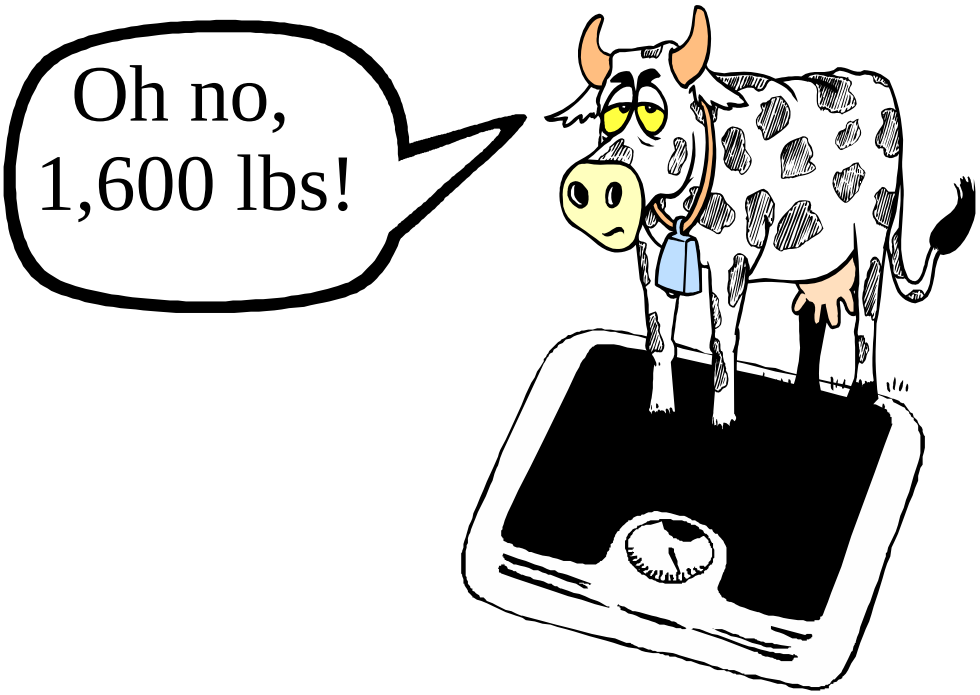
Each day the dairy cow can produce up to:

64 quarts milk (256 glasses) or,
14 pounds cheese or,
5 gallons ice cream or,
6 pounds butter

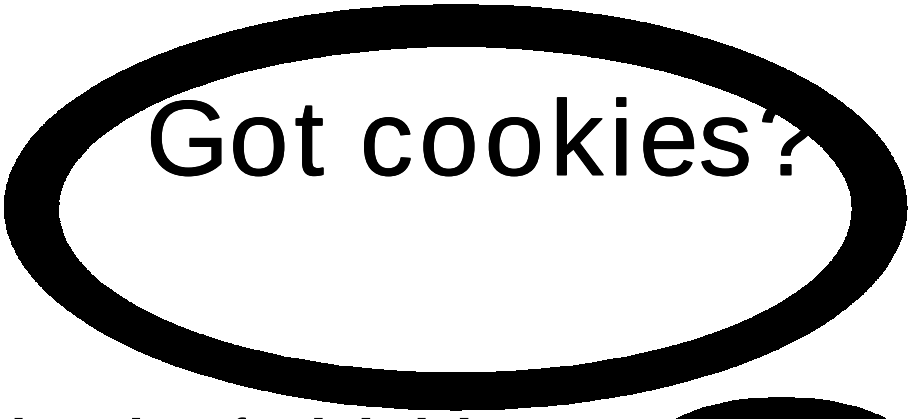
How much does a cow weigh?

When a Holstein cow is milking, she weighs between 1,100 and 1,500 pounds. A Jersey cow weighs between 700 and 1,000 pounds.

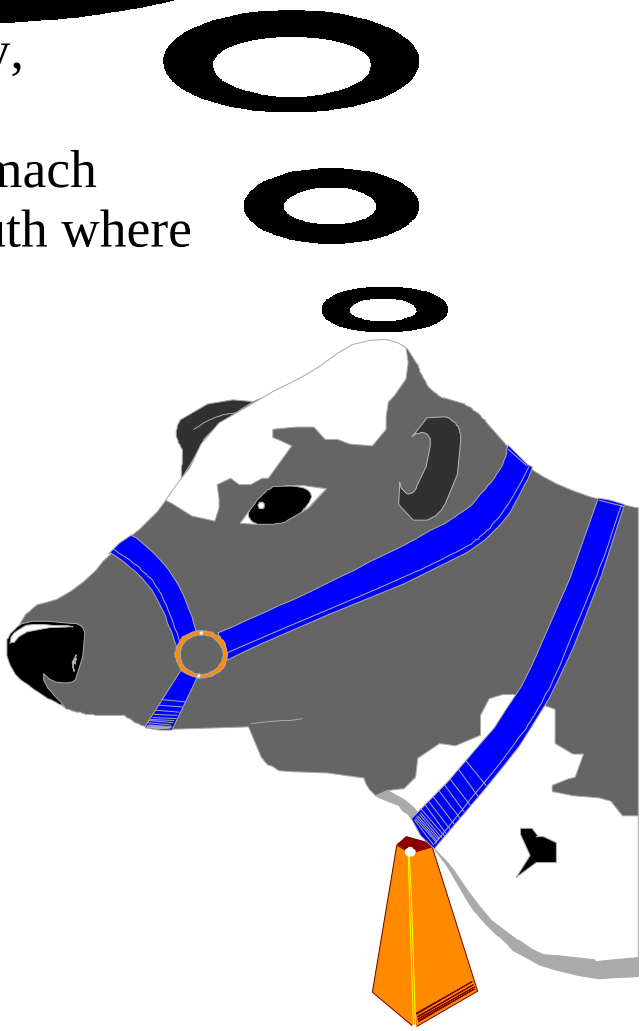




What's all this about chewing cud?



Cows chew their food slightly, then swallow the food.
The food goes to the first stomach then comes back into the mouth where they chew it more. Cows have one stomach that is divided into four parts.

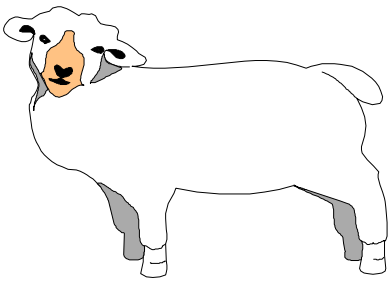


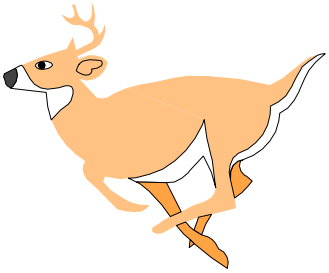
Cud chewing helps cows get the most out of difficult-to-digest foods like grass.

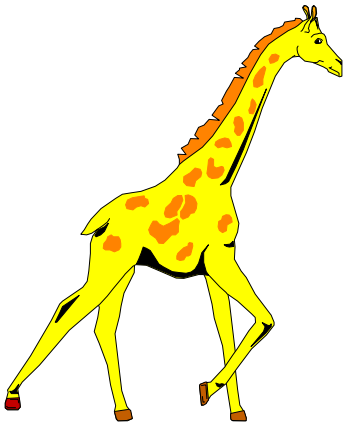
Ruminants are even-toed hoofed animals that regurgitate their food and chew cud. (Cows, sheep, deer, giraffes and camels are ruminants.)

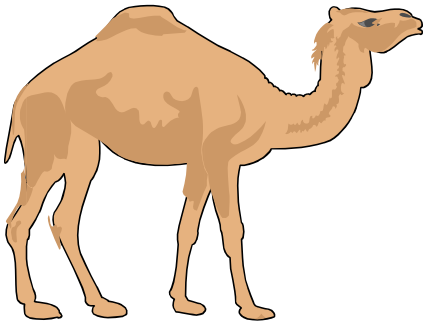
Ruminants

Circle the animal that is not a ruminant.



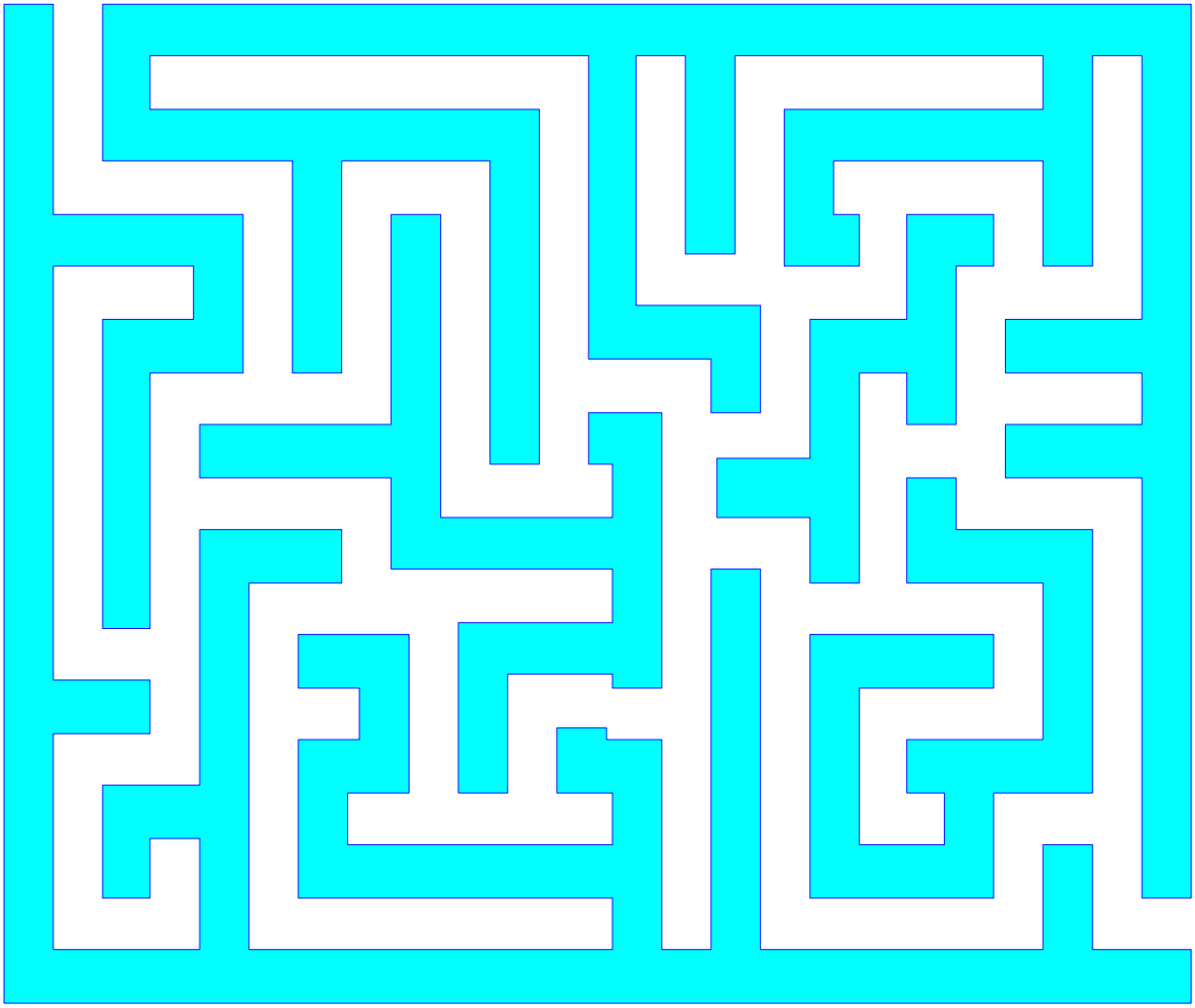




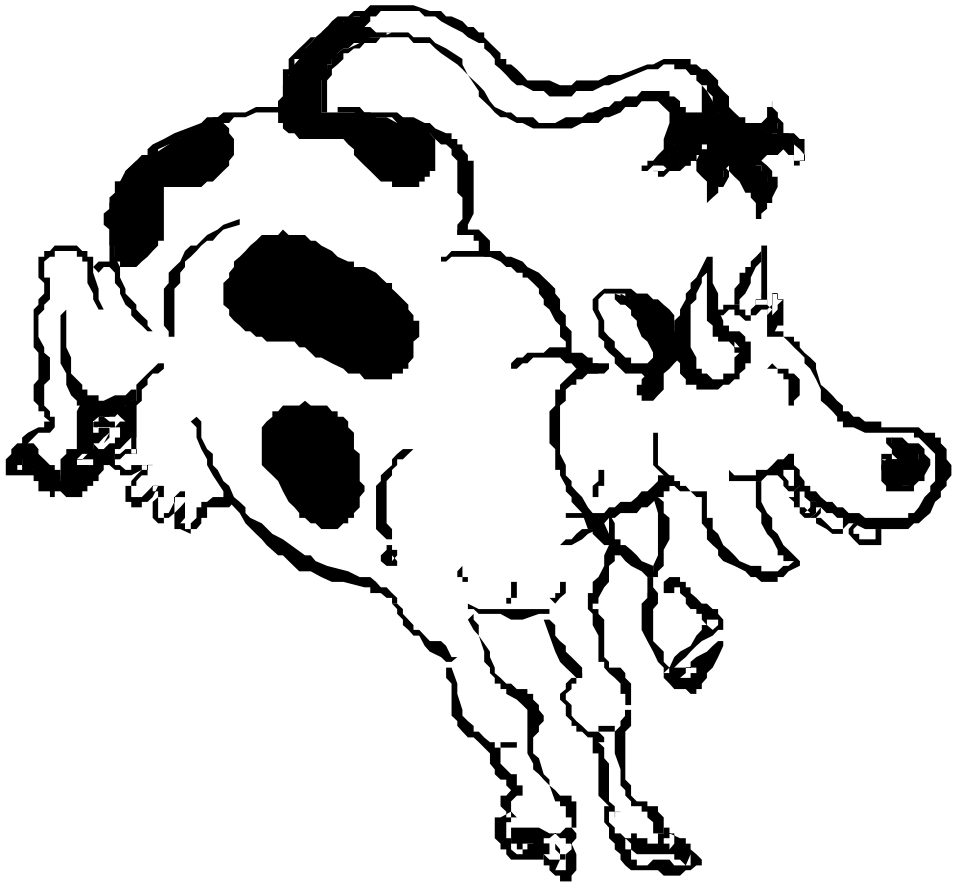


How much does a cow eat?

Cows are BIG eaters. Cows eat 90 pounds of food a day!

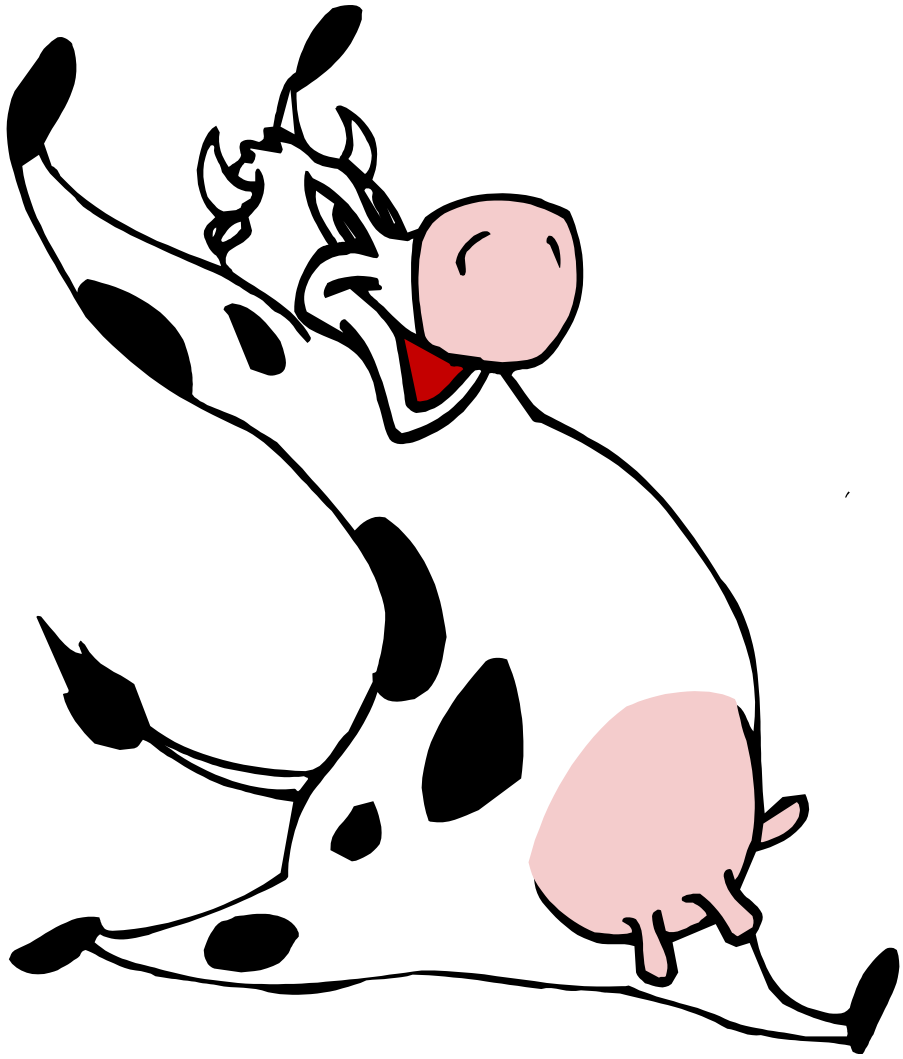


Do cows have special teeth for eating grass?



Cow's teeth are different from ours. On the top front, cows have a tough pad of skin instead of teeth.
They have 8 incisors on the bottom front and 6 strong molars on the top and bottom of each side to grind their food. Cows have a total of 32 teeth.

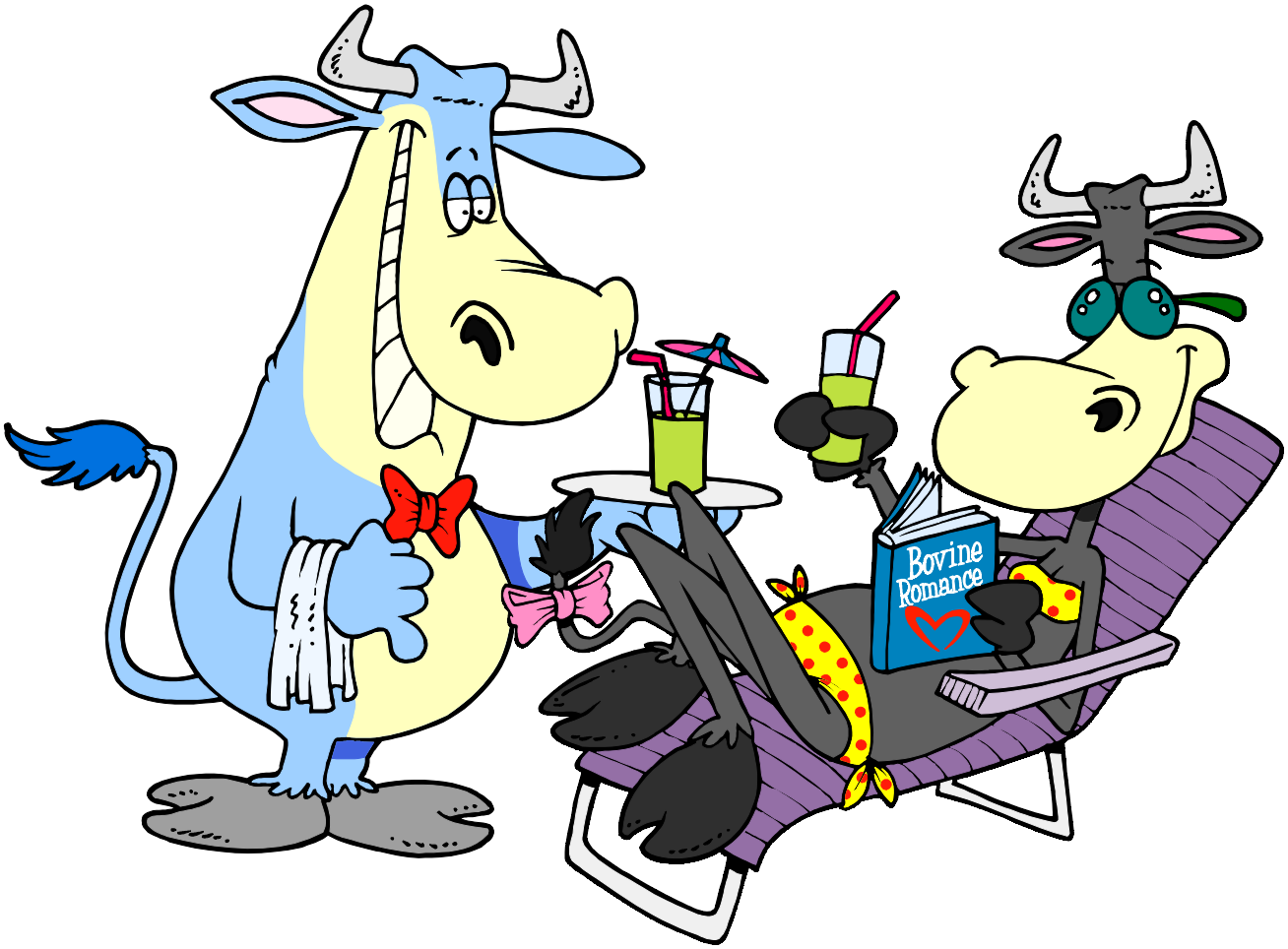
How many stomachs does a cow have?



Some people say that a cow has four stomachs. Actually, a cow has one stomach with four compartments.

For a cartoon illustration of the inside of a cow, go to this web address: http://www.mteam.com/cow4.html#cow.

How much water does a cow drink?

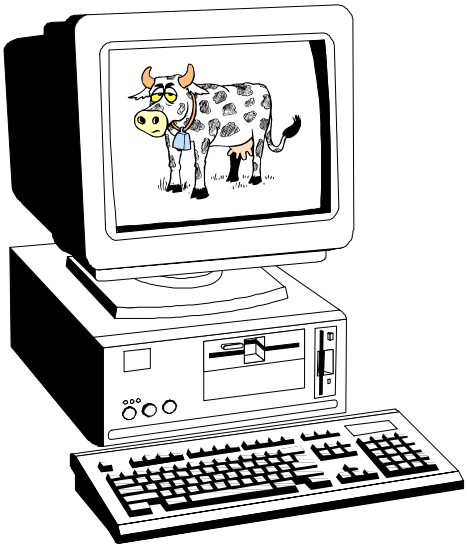


Cows drink 25-50 gallons of water each day. That's nearly a bathtub full.

Cartoon cows drink limeade.

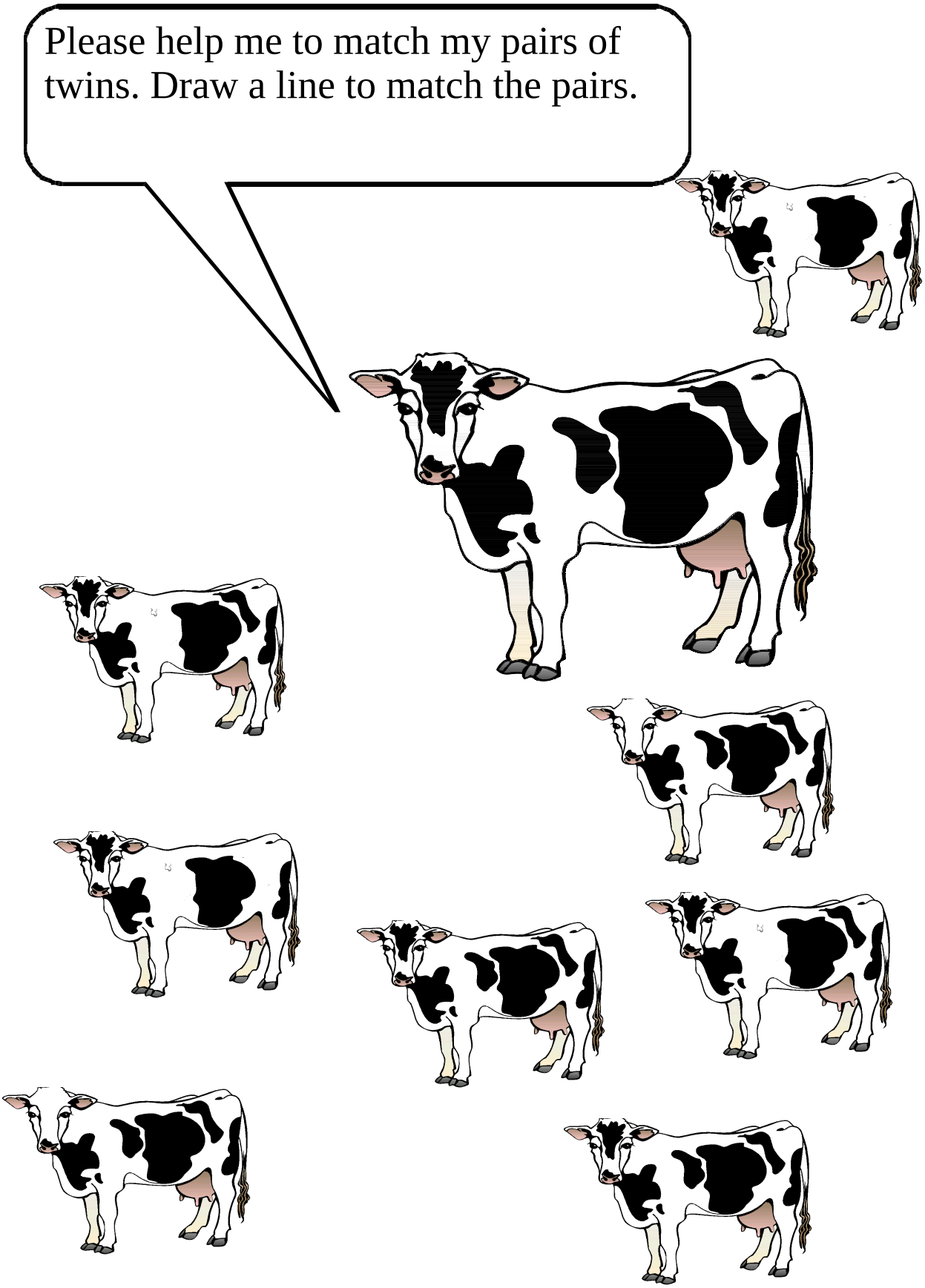
Why do some cows look like they have earrings?

Milk cows usually have their ears pierced with I.D. tags.



Each cow has a different number that allows the dairy farmer to track her activities by computer. The cow's milk weight is recorded in the computer as well as any medicines she receives.

Do you have pierced ears?


Please help me to match my pairs of twins. Draw a line to match the pairs.

How do you say cow?

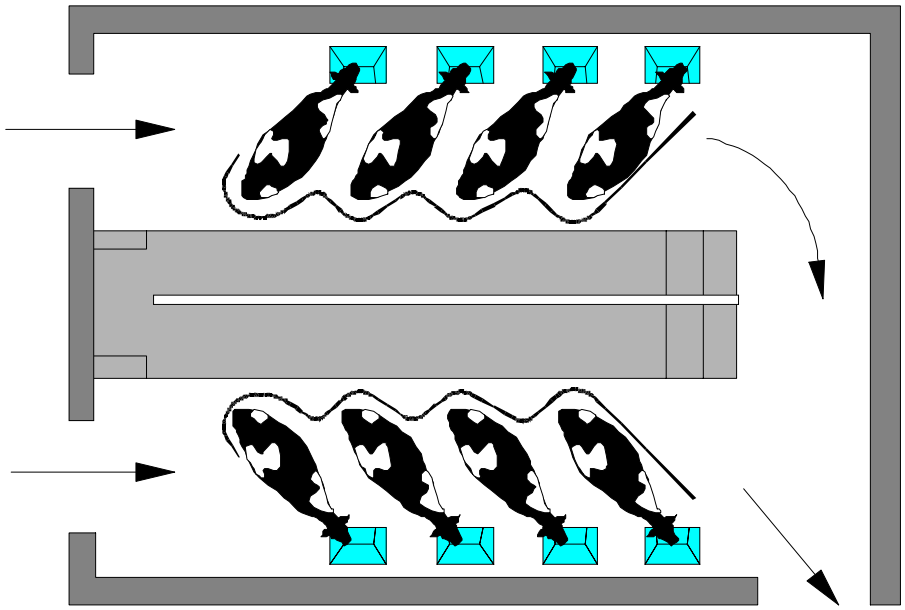
Spanish	=	vacca
Italian	=	vacca
Portugese	=	vaca
German	=	kuh
Dutch	=	koe
Esparanto	=	bov
French	=	vache
Japanese	=	ushi
Latin	=	bos, bovis
Finnish	=	lehmä
Swahili	=	gombe, ng'ombe
Vietnamese	=	danh tõ

Milking Cows

Before milking machines were invented (in 1894), farmers could only milk about six cows per hour (whew, that's hard work!).

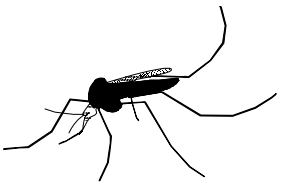
Today, farmers use machines to milk more than 100 cows per hour. Many farms also have computers to help track how much milk a cow makes.

A cow's udder can hold 25-50 pounds of milk at a time -- no wonder she's so eager to be milked -- and a cow gives nearly 200,000 glasses of milk in her lifetime.



Cow Trivia and Useless facts

Mosquitos like cow blood more than human blood.



The Moscow Circus has a troupe of dancing cows that dance to Russian music and play football.

Cows clean their noses with their tongues.

Twelve or more cows are known as a "flink."

You can lead a cow upstairs, but not downstairs.

Most cows give more milk when they listen to music.

Yes or No

1. Cows spend up to 8 hours per day eating. ____Yes ___No

2. A cow has four stomachs. ____Yes ____No

3. Dairy cattle have a ancestor named aurochs. ___Yes ___ No

4. USDA was formed to get rid of cow disease.____Yes ___No

5. Can you tell Holstein cows apart? ___Yes ___No

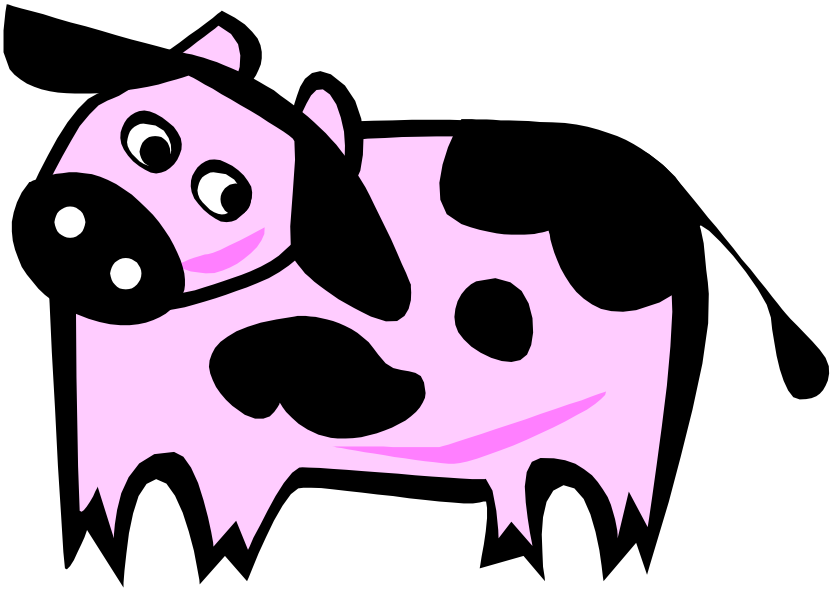
6. A female cow is a bull. ___Yes ___No

7. The average cow can produce about 20,000 pounds of milk per year. ____Yes ___No

8. Cud chewing helps cows to digest their food. ___Yes ___No

9. Invitations have been mailed for the ruminant family reunion. Will the kangaroo receive one?
___Yes ___No

10. When Columbus arrived in America he found cows.
___Yes ___No



Answers: Y,N,Y,Y,Y,N,Y,Y,N,N

Additional Information on Dairy Cattle

Lesson Plans

http://www.inform.umd.edu/EdRes/Topic/AgrEnv/ndd/4h/

http://www.cyfernet.mes.umn.edu/

Cows On the Web

Big Dave's Cow Page:
http://www.gl.umbc.edu/~dschmi1/links/cow.html

Not Just Cows: http://www.morrisville.edu/~drewwe/njc/

Cow Facts: http://www.gl.umbc.edu/~dschmi1/cows/facts.html

Breeds of Livestock: http://www.ansi.okstate.edu/BREEDS/cattle/

Cows, Trivia and Facts: http://www.funtrivia.com/Animals/Cows2.html

Research into the Aurochs: http://www.kte.nl/~vuure/oeros/oeros.html

Types of dairy cows: http://www.kenyon.edu/projects/farmschool/food/milkcowt.htm

Resources from the AGRICOLA Database

AU: Burditt,-Larry.
CA: Oklahoma State University. Animal Science Dept.
TI: Breeds of livestock.
SO: [Stillwater, Okla.?] : Dept. of Animal Science, Oklahoma State University, [c1995]-
CN: DNAL SF105.B74-1995
LA: English

AU: McCay,-B.
TI: Continental cattle a century ago [Breeds, history].
SO: Ark. Stoneleigh Park, Kenilworth : Rare Breeds Survival Trust. July 15, 1984. v. 11 (7) p. 203-206. ill.
CN: DNAL SF105.A74
LA: English

Additional Cyber Resources

http://www.usda.gov/news/usdakids/index.html

All About Dairy Cows was created by
Deborah Y. Richardson

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