

INSIDE FACTORIES

HOW Products

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ARE MADE

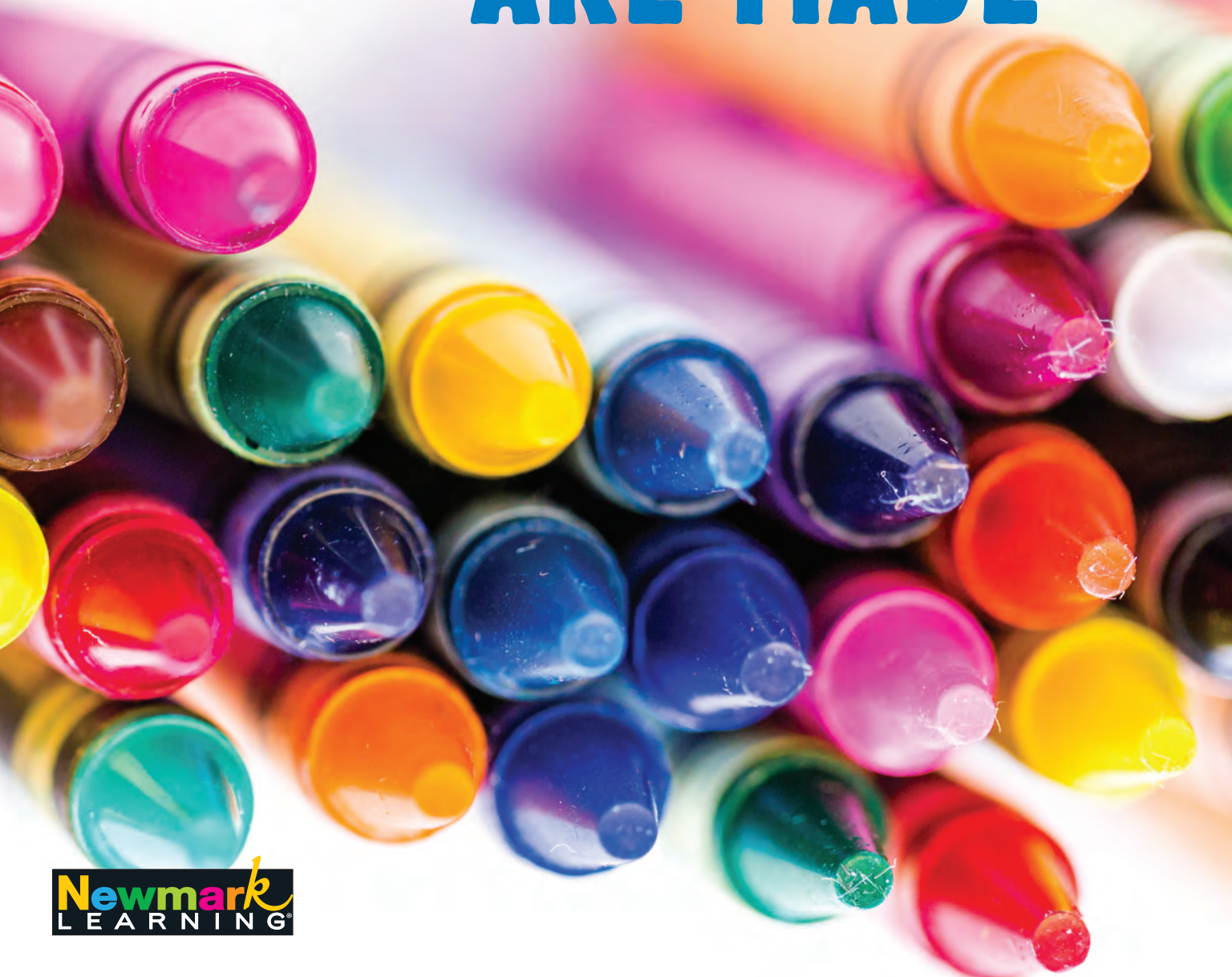
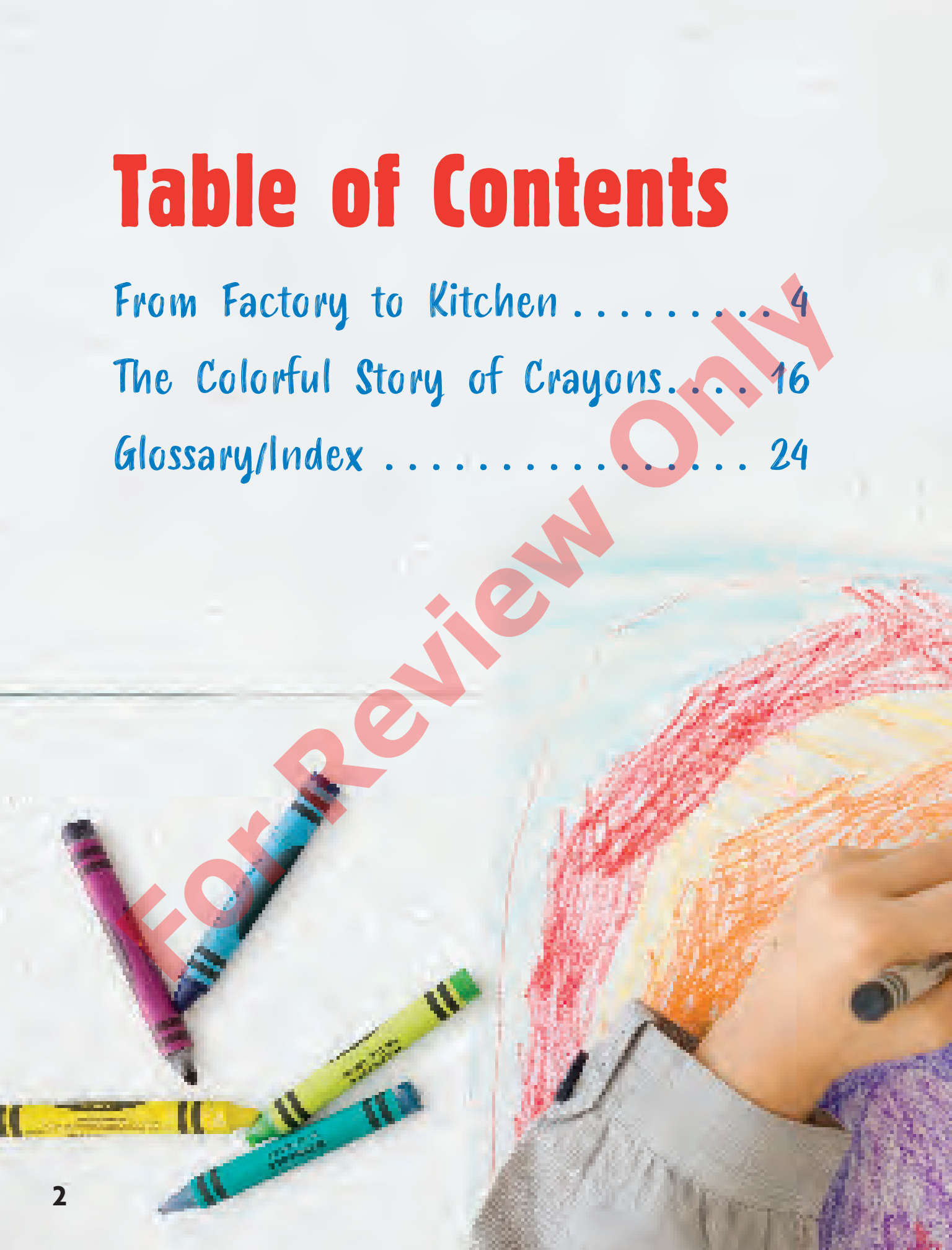


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From Factory to Kitchen

There are many different products in a kitchen.

A product is something made or processed by people. Milk, drinking glasses, and paper towels are products in a kitchen. This is how they are made.

How many different products are on the table?



Facts About Cows

- A cow can produce about 23 liters (6 gallons) of milk in one day.
- Each day a cow drinks enough water to fill a bathtub!
- There are more than nine million dairy cows in the United States.

These black-and-white cows are Holsteins, a type of cow. Most dairy farms in the United States have Holstein cows.



Milk

Milk is put into bottles and cartons in a factory. But before that come the cows. The milk that arrives at the factory is produced by cows.

The cows live on a dairy farm. Dairy farms are farms that produce milk—and sometimes cheese. Dairy farmers raise the cows and take care of them. They collect the milk and store it.



▲ Milk from the farm is bottled at the factory.



A Day on a Dairy Farm

TIME	JOB
 5 a.m.	Milk cows
 8 a.m.	Feed cows
 11 a.m.	Clean barn
 noon	Check cows to make sure they are healthy
 4 p.m.	Milk cows again
 6 p.m.	Feed cows again

On the Farm

Cows on a dairy farm have to be milked twice a day. At milking time, farm workers lead the cows into a big barn. There is a room inside the barn called the milking parlor.

Large dairy farms have machines that milk the cows. In the parlor, each cow is connected to a milking machine. It takes about five minutes to milk a cow with a machine.

Fresh milk is warm when it first comes out of a cow. The warm milk goes immediately into a cooling tank to be chilled.



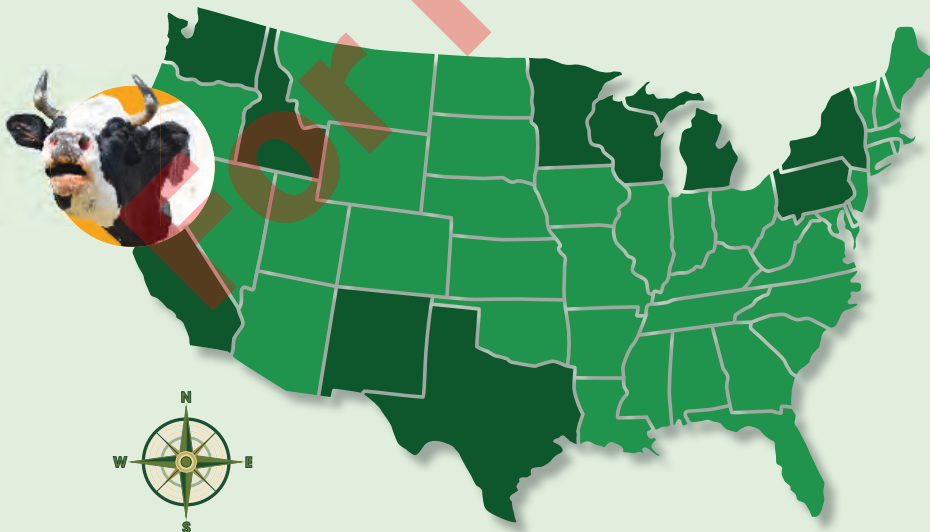
From Cow to Carton

A tanker truck takes the fresh milk to a dairy plant, or factory. At the plant, the milk is put into a heating machine. The heat kills germs in the milk that can make people sick. This process is known as pasteurization.

Afterward, the milk is cooled down again. The cold milk travels through pipes to another machine. This machine fills bottles, cartons, and plastic jugs with the milk. Finally, the milk is ready to be sold.

Lots of Milk!

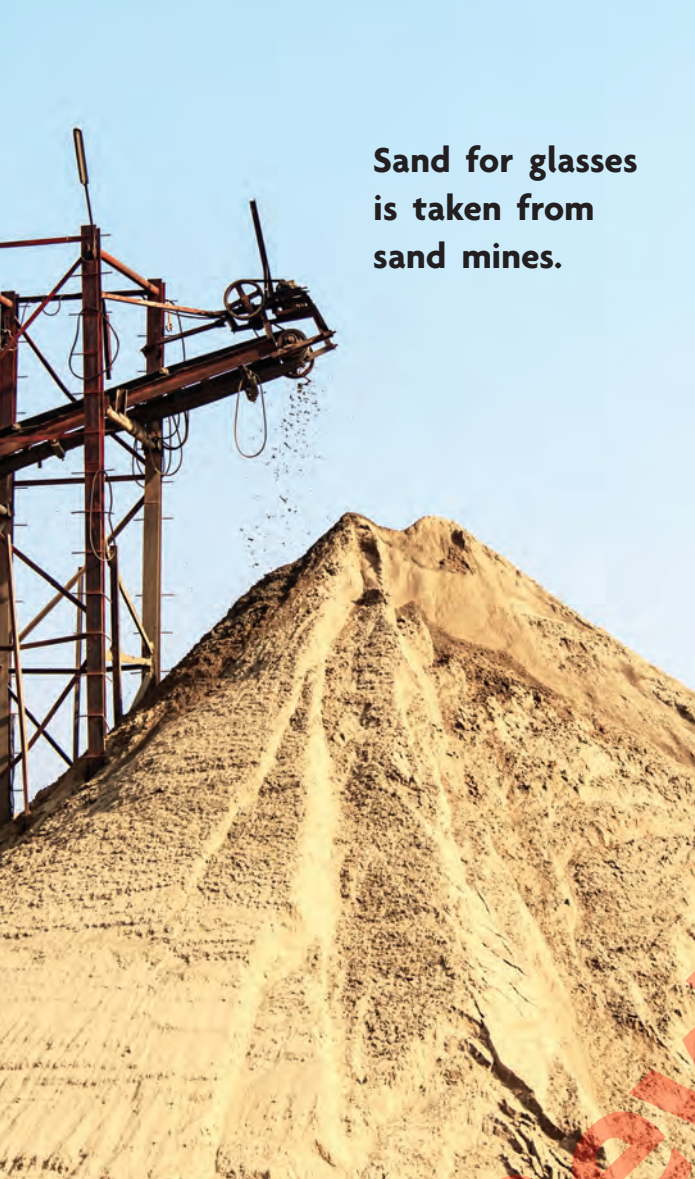
According to the U.S. government, these states produce the most cow's milk.



Top Milk Producers in U.S.

- California
- Wisconsin
- Idaho
- New York
- Texas
- Michigan
- Pennsylvania
- Minnesota
- New Mexico
- Washington





**Sand for glasses
is taken from
sand mines.**

Glass

Many people may not know this, but drinking glasses are made from sand. Glass and most products made from glass start off as sand.

Sand is a natural resource. A resource is anything that people can use. A natural resource is something found in nature that people can use.

Drinking glasses are made in a glass factory. The factory buys huge amounts of sand from a sand company. Trucks deliver the sand to the factory.



Glasses start out as sand. ▲

Inside the factory, workers mix sand with other natural materials. They also add in crushed glass that has been discarded and recycled.

Then they put this sand mixture into a furnace. A furnace is similar to an oven. The furnace heats the mixture to around 1,500 degrees Celsius (2,700 degrees Fahrenheit). That's very hot! Most home ovens only go to about 260 degrees Celsius (500 degrees Fahrenheit).

The furnace melts the sand mixture into a thick liquid. This liquid is called molten glass.

A furnace takes 24 hours to melt the sand mixture. ▼

