

# Corn to Ethanol

Solve the math problems below each important step in ethanol production. Use the answers to correctly sequence each step.

Simple sugars are fermented, then distilled to make ethanol.

$$15 - 9 - 2 = \underline{\quad}$$

Ethanol is blended with gasoline.

$$18 + 27 - 17 - 23 = \underline{\quad}$$

Corn is finely ground into "biomass."

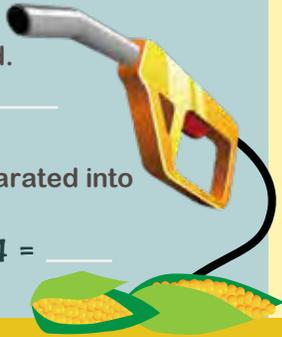
$$4 + 3 + 9 - 6 - 8 + = \underline{\quad}$$

Corn is harvested.

$$38 - 17 - 20 = \underline{\quad}$$

Starches are separated into simple sugars.

$$12 + 15 - 20 - 4 = \underline{\quad}$$



# Car Facts

Read each statement related to cars. Decide if it is true or false. Circle your answer.

**T F** There are more cars than people in the world.

**T F** Cars have more than 40,000 parts.

**T F** Nearly 165,000 cars are produced each day.

**T F** The first cars could only go 10 miles per hour (mph).

**T F** One bushel of soybeans produces one gallon of soy diesel.

**T F** Henry Ford invented the first car.



# Positively 4 Kids!

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Agriculture gives us the food we need to fuel our bodies and keep us going. And it also provides lots of materials we need for our **transportation.**

As you travel past corn and soybean fields and cattle in pastures, you are relying on them in your car. From the roads, to car parts, to fuel in the tank, agriculture plays an important part in taking us where we want to go!

## Close-Up Match Up

Match each close-up picture to the correct car part.



1. a. air vent



2. b. tail light



3. c. steering wheel



4. d. tire



5. e. door handle



6. f. seat

## Win This Book

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# Agriculture...Taking Us Where We Want to Go

## Interior Storage Bins

We always need a place to store things as we travel. Wheat straw may reinforce the plastics used to make those storage bins.

## Soundproofing

Pounds of scrap cotton from jeans and t-shirts can be used in sound-absorbing materials that ensure a quiet ride.

## Seats

Seats may be covered in leather from cattle or fabric from cotton, but for 10 years, some of the foam that makes them comfortable to sit in has been made from soybeans.

## Antifreeze

To keep engines running cool, antifreeze needs the fatty acids of glycerol, a beef by-product.

## Fuel

Cars need fuel in order to go. Corn and soybeans are used to make ethanol and soy-diesel, which are some of the fuels used to power cars today.

## Car Body

There are lots of metal parts that need to be held together on cars. Glue, made from beef proteins, are used in car bodies.

## Tires

Tires are under constant surface friction. They hold their shape because the rubber used in tires contains stearic acid, a by-product from beef cattle.

## Asphalt

Paved roads give a smooth ride. Beef fat is used as a binding agent in the asphalt on our roads.

