

# ROCKETS!

## HOW DOES A ROCKET WORK?

A rocket is a vehicle with an engine on it that propels it. It burns fuel (either liquid or solid) which then turns into gas, and the gas pushes the rocket forward. This process is called propulsion.

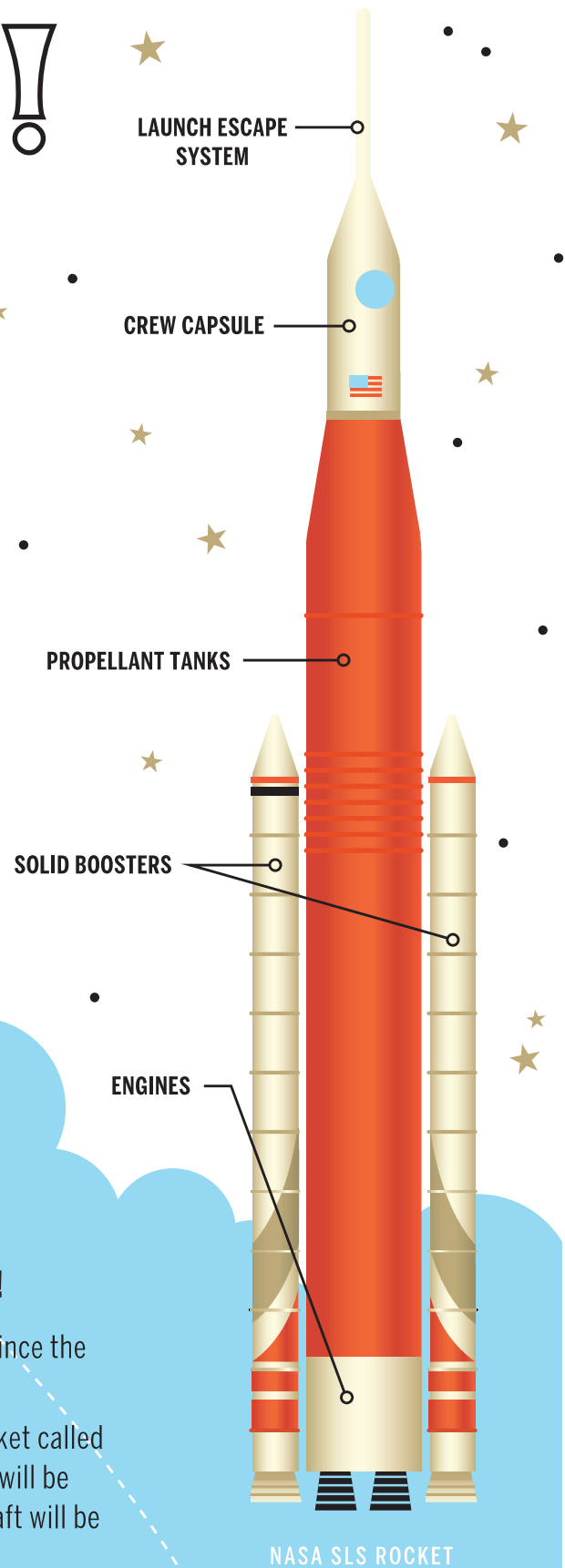
The concept is much like letting air out of a balloon. When the air is released, the balloon shoots through the air.

The reason that a rocket can work in space, is unlike jet engines, no air is required run, only fuel.

## WE WANT TO TAKE ROCKETS TO MARS!

Space programs around the world have been working since the 1950s on plans to get people to Mars.

A company called SpaceX is currently working on a rocket called Starship that will be used to colonize Mars. The rocket will be capable of carrying 100 people! This super heavy aircraft will be reusable and able to carry very large loads.



# MAKE YOUR OWN BOTTLE ROCKET

To better understand how rockets work, and the concept of propulsion, you can make your very own bottle rocket! This project can be done using things you have around the house.

## SUPPLIES YOU'LL NEED:

- Plastic Bottle
- Vinegar
- Baking Soda
- Wine Cork
- 3 Pencils
- Duct Tape

### STEP 1

Tape pencils to the plastic bottle so that the flat end will touch the ground when the bottle is upside down.

### STEP 2

Pour vinegar in the bottle.

### STEP 3

Add the baking soda and quickly push in the cork. You only need a little bit of baking soda.

### STEP 4

Flip the bottle upside down and step back before it shoots away!

# BLAST OFF!!!!

Source: <https://www.greenkidcrafts.com/diy-bottle-rocket/>,  
<https://www.spacex.com/starship>