An asteroid is a large rock in outer space. Some, like Ceres, can be very large (580 miles across), while others are just a few meters long. Currently NASA is investigating ways to land on asteroids to mine valuable minerals they may contain.

CONGRATULATIONS!

You are part of Girlstart’s 1st All-Girl Mission to create a vehicle to land and collect minerals on an asteroid. Girlstart and NASA need your help coming up with cool designs. Use the materials included to build a vehicle that can grab onto the asteroid’s surface and attach an object that could collect minerals from the asteroid. Remember Girlstart and NASA want you to be unique, creative and have fun! Sketch out your asteroid lander below to help your design process.

NAME YOUR ASTEROID LANDER: __________________________________________________________________________

MY ASTEROID LANDER IS SPECIAL BECAUSE: ____________________________________________________________________________

FUN ASTEROID FACTS:
• Can be a few feet to several hundred miles wide
• Most are in the asteroid belt in between Mars and Jupiter
• Not easy to see in the sky because they look like dark spots
• Aren’t big enough to be “real” planets
• Sometimes called Minor planets
• Made up of carbon, minerals, and other valuable resources

MATERIALS: 1 Spoon 3 Pipe cleaners 4 Toothpicks 2 Popsicle Sticks 1 Paper Clip 2 Pom Poms 2 Index Cards 1 Dixie Cup Few Jewels Piece of Card Stock

The Asteroid Belt is a big highway in a circle around the Sun. Asteroids are like cars on the highway. Sometimes, the asteroid cars run into each other. When this happens, the asteroids may break up into smaller asteroids. Most asteroids are probably the result of crashes between bigger space rocks. Photo and references courtesy of NASA.gov