Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**PART 1: Laws of Motion**

1. How many years ago were rockets invented? OVER 2,000 YEARS AGO
2. What country invented rockets? CHINA
3. Are fireworks considered rockets? YES
4. What is another word for “payload”? CARGO
5. What is one example of a payload that a rocket might carry? A SATALITE
6. Does the second stage of a rocket have an engine and fuel tanks? YES
7. Why are these able to smaller?
8. What is the name of the scientist who came up with the three laws of motion? SIR ISSAC NEWTON
9. What is the first of these laws? INERTA
10. Define it. An object in motion will stay in motion. An object at rest will stay at rest.
11. What is Newtion’s second law of motion? FORCE = MASS x ACCELLERATION
12. Define it. If you push with a greater force, your end up with greater acceleration
13. What is Newtion’s third law of motion? Equal and Opposite Reactions
14. Define it. If you push on an object with a certain force, it also pushes on you with the same force.
15. What object gets blown-up to show all three laws?

**PART 2: Building a Rocket**

1. What two types of rockets are built at the building the TV show went to? DELTA AND ATLAS ROCKETS
2. What was the name of the first United States Astronaut to orbit the planet Earth? JOHN GLENN
3. What type of rocket was he on? ATLAS
4. How fast was the ATLAS rocket that broke the speed record? 35,800 MPH
5. What type of metal is used to start the rocket building process? ALUMINUM
6. How do engineers make the aluminum lighter but keep it’s strength? CUT TRIANGLE PATTERNS IN IT
7. Would a match burn in space? NO
8. Why? NO OXYGEN

**PART 3: Test of a Rocket Engine**