NASA Webquest

Name:_____
Period:_____
Date:_____

→**Go to: http://exploration.grc.nasa.gov/education/rocket/BottleRocket/about.htm**

1.) Describe what a water rocket is using words and/or pictures:

→**Go to: http://exploration.grc.nasa.gov/education/rocket/newton.html**

2.) Who developed theories of gravitation? _____ in the year _____

3.) What is Newton's first law?

4.) What is Newton's second law?

5.) What is Newton's third law?

6.) Pick two of the laws. How do they relate to rockets? (Explain them using your own words and rockets as an example)

→*Click the blue next arrow at the bottom of the screen*

7.) When the thrust is greater than the _____, there is a **_____external force** equal to the thrust minus the weight, and the rocket begins to _____.

→*Click the blue next arrow at the bottom of the screen*

8.) What do force, velocity, and momentum have in common?

9.) Why is it not a good idea to assume that the mass is constant in a bottle rocket?

→*Click the blue next arrow next to "Newton's Laws of Motion" at the bottom of the screen*

10.) Explain how thrust and Newton's third law are related.

→**Go to: http://exploration.grc.nasa.gov/education/rocket/rktbot.html**

11.) Draw the diagram of a water rocket set up in the box below. Make sure to label as much as you can.

12.) Why do rockets have fins?

13.) How is a water rocket different than a compressed air rocket?

→*Click the blue next arrow next to "Water Rockets" at the bottom of the screen*

14.) Describe what happens during the flight of a water rocket. List as many steps as possible while making sure to talk about force, weight, and acceleration.

→**Extension: Go to: http://science.howstuffworks.com/innovation/inventions/top-5-nasa-inventions.htm . To go to the next page, click the blue "keep reading" button.**

List 10 inventions that have come from space exploration: