

Bill Nye Gravity – 25 Points

Name _____

Science _____

- 1) Explain why gravity is a force.
- 2) _____ Which definition best defines gravity?
A) Gravity is the attractive force between any two objects.
B) Gravity is the pull toward the center of the earth.
- 3) **Inertia** is the resistance of an object to a change in its state of motion. Which object has more inertia? Circle your answer.



- 4) On earth, a falling apple and bowling ball would both accelerate at _____ meters/second/second.
- 5) Newton said that: **Force = mass x acceleration**. Which object has more force acting on it? Circle it.



(Which object has more weight?)

- 6) Mr. Galilei dropped 2 cannon balls from the tower of Pisa. What was his first name?
- 7) David R. Scott showed that a feather and a hammer accelerate at the same rate. Why won't this experiment work well on earth?

- 8) **Yes** **No** Is there any air on the moon?
- 9) **Yes** **No** Does the moon have gravity?
- 10) **Yes** **No** Is the moon falling? (Is earth's gravity accelerating the moon toward us?)



- 11) _____ = **mass x g**
- 12) What would you weigh in deep space where the gravitational force is zero? _____ Newtons
- 13) Why aren't we pulled off the surface of our planet if the sun's gravity is greater than earth's gravity?