

## 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?

