Name: _____ **Gravity**

Gravity Quiz:

mass distance stronger gravity weaker massive matter pull-back weight black holes less nothing same orbit tides atmosphere rain

1. _____ is an invisible force that pulls objects toward each other. All objects in the universe are attracted to all other objects, but the amount of force pulling any two objects toward each other depends upon how _____ the objects are and the _____ between them. The mass of an object is a measure of how much _____ it contains.

2. The more massive two objects are, the _____ will be the gravitational force between them. The farther apart they are, the _____ will be the force between them.

3. You are pulled toward the earth because of the earth's great _____, and you _____ on the earth with the _____ force that the earth pulls on you.

4. Your _____ is a measure of the gravitational attraction between you and the earth. If you were weighed on the moon, you would weigh _____ than you do on earth. This is because the moon is less massive than the earth, so the gravitational attraction between you and the moon would be less than between you and the earth. Deep in outer space, you would weigh _____ because the gravitational attraction between you and other distant objects would be much too weak to measure.

5. _____ have so much mass that their gravity is even strong enough to pull in light. That is why they are called *black* holes.

6. Without gravity, we couldn't survive. Gravity affects everything on earth, including the earth itself. Gravity keeps the earth in _____ around the sun. Gravity from the moon pulls on our oceans causing the _____. Earth's gravity pulls _____ from the clouds and keeps our _____ from floating away, providing us with air to breathe.