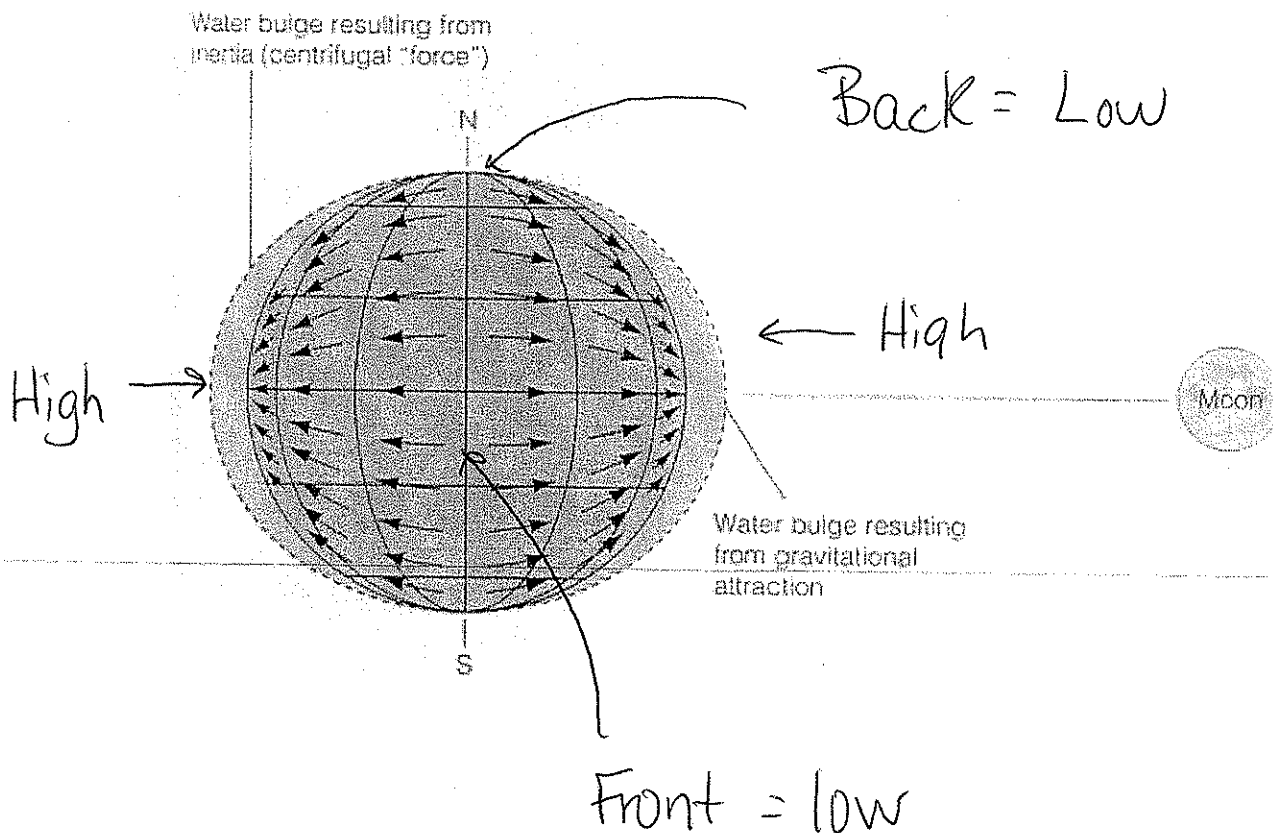


Name: _____ Date: _____

Physical Science Notes 17 Tides

- The moon stays in orbit around the Earth due to the gravity of the Earth, but the moon also exerts a force of gravity on the Earth.
- We cannot feel this force and the earth is not affected in large ways by it, but the force does affect the Earth's tides.
 - Although the moon is pulling on both the land and water of the Earth, it is only noticeable in the water of Earth.
 - A tide is the regular rising and falling of the Earth's major bodies of water.



- The above diagram tells us that where the moon is closest to the earth, the Earth will be in high tide.

- The complete opposite side of the earth will be in high tide due to centripetal force.

- About halfway between these two points, the waters will be in low tide.

- This is due to the fact that so much water has been displaced to the regions experiencing high tide as well as the lack of forces acting on it.

- Just by looking at a calendar, we know that moon phases are

predictable Since this is the case, tidal phases are also be predicted. If you go on vacation to an ocean front spot, you can easily find information (down to the second) that tells you when low and high tide will be.