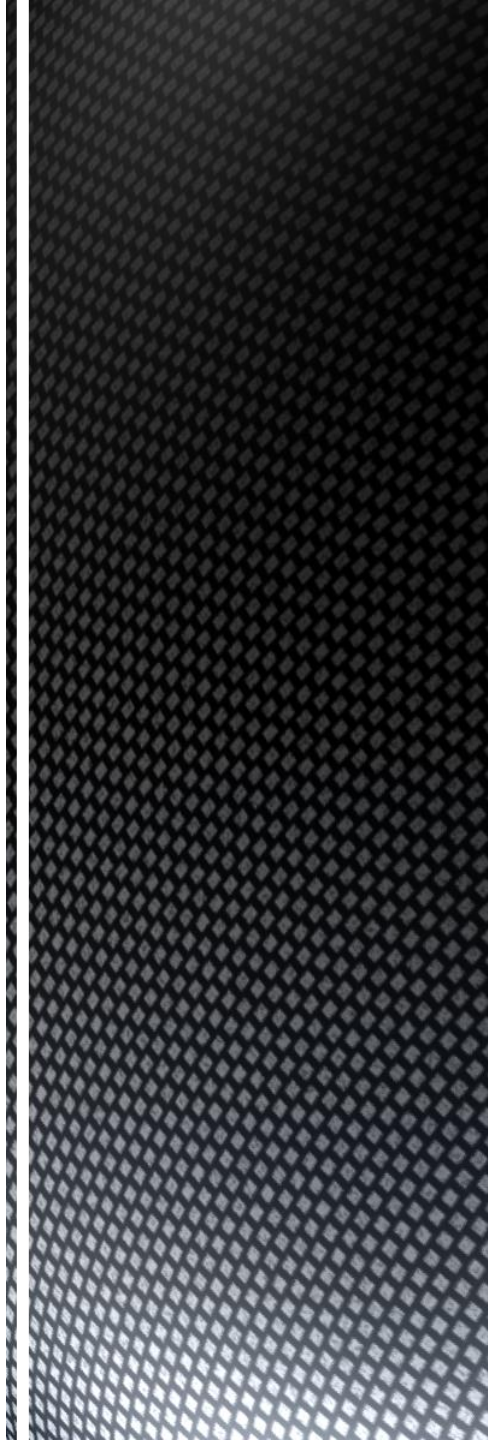


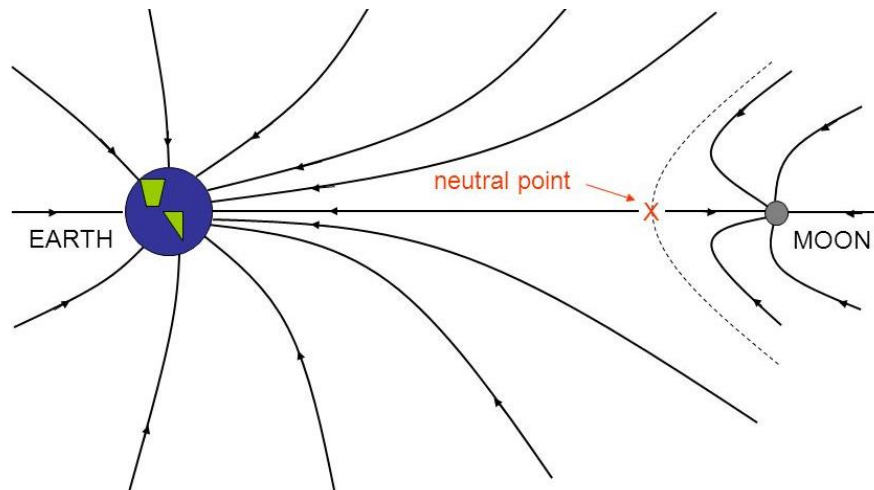
# Tides



# Tides

## Introduction

- **Tides** – the \_\_\_\_\_ and \_\_\_\_\_ of the Earth's oceans created by the gravitational pull of the Moon
- Just as the Earth pulls on the Moon, the Moon pulls back due to \_\_\_\_\_ being \_\_\_\_\_



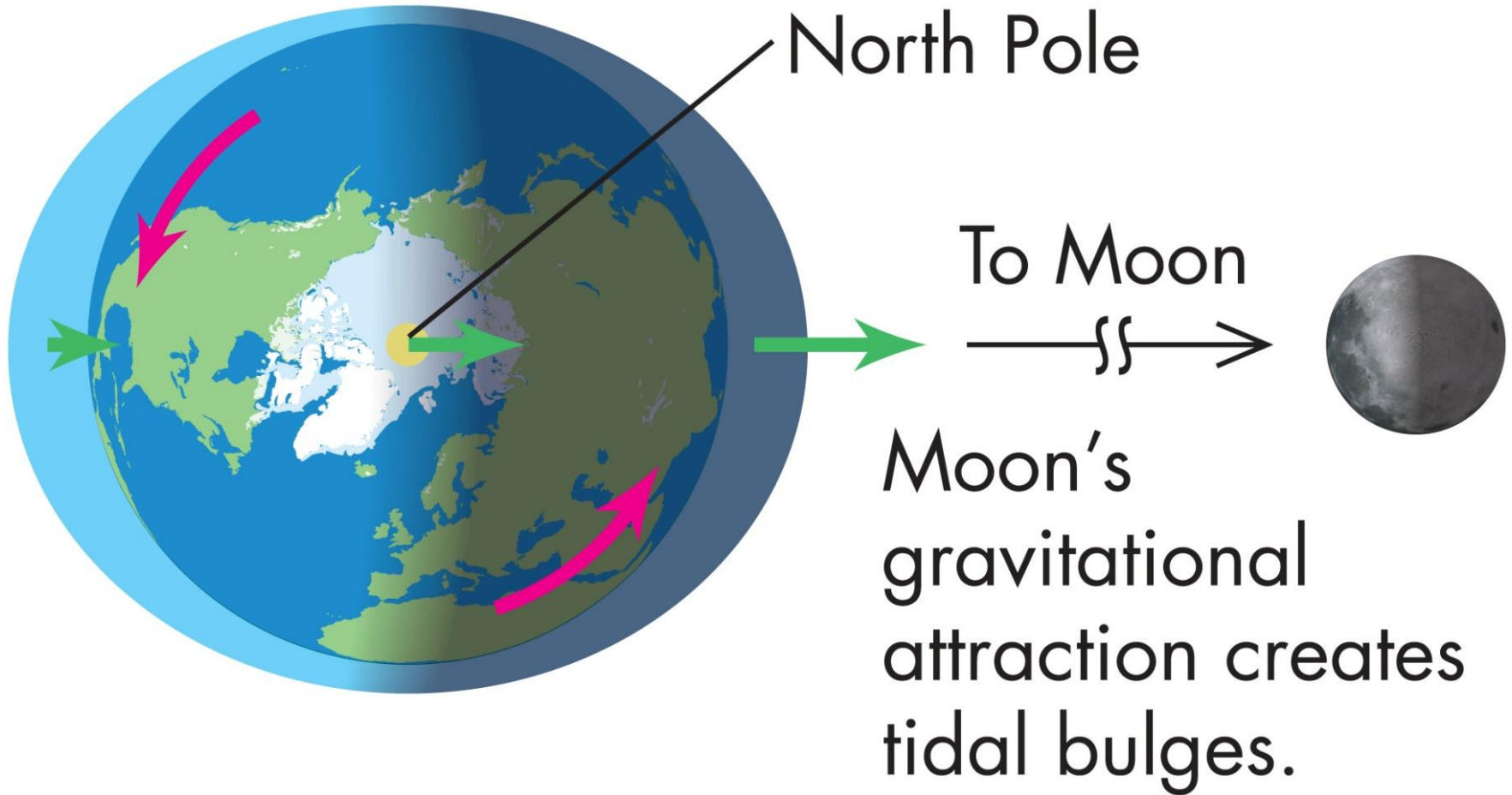
# Tides

## Causes of Tides

- The attraction of the Earth to the Moon is \_\_\_\_\_ on the side of Earth that \_\_\_\_\_ the Moon and \_\_\_\_\_ on the side that \_\_\_\_\_ (at the time)
- Gravity weakens with \_\_\_\_\_
  - The more distance put between the Earth's surface and the Moon at a certain location, the \_\_\_\_\_ the pull
- **Differential Gravitational Force** – the difference between the \_\_\_\_\_ force on one side and the \_\_\_\_\_ force on the other side
  - Earth's side and the Moon

# Tides

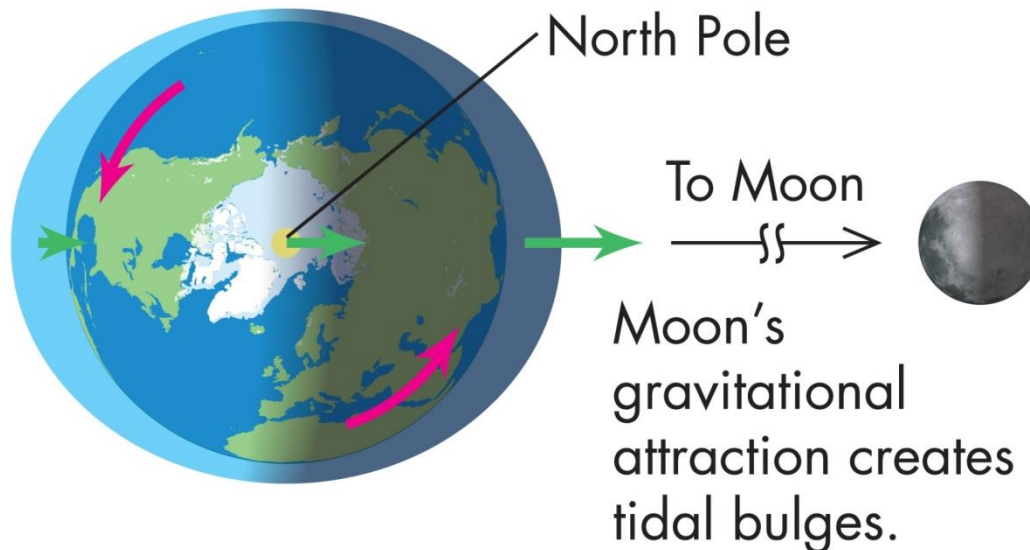
## Causes of Tides



# Tides

## Causes of Tides

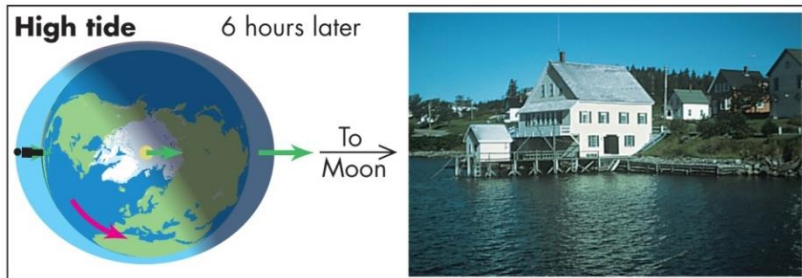
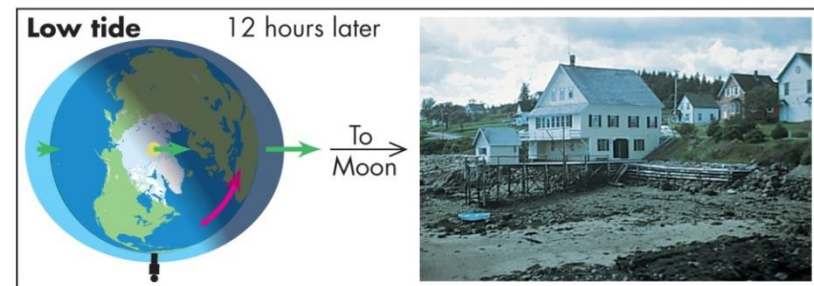
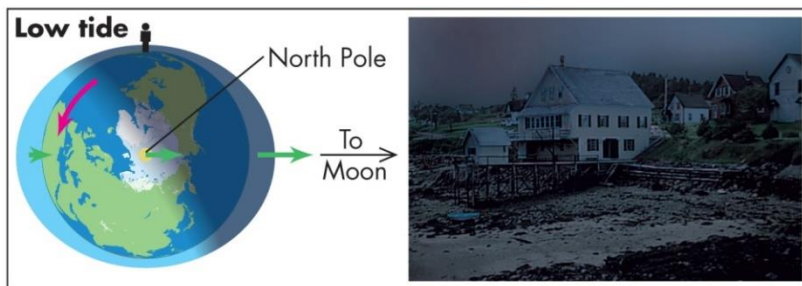
- **Tidal Bulge** – the bulge of a \_\_\_\_\_ (Earth's surface) created by another's \_\_\_\_\_ attraction to it
- Two forms: one on the side \_\_\_\_\_ the pulling object (Moon) and one exactly \_\_\_\_\_ of it



# Tides

## Causes of Tides

- Because of the tidal \_\_\_\_\_ and Earth's \_\_\_\_\_, we experience \_\_\_\_\_ time frames of “bulging” water and two of “low” water
- 24 hours: 2 \_\_\_\_\_ tides and 2 \_\_\_\_\_ tides



# Tides

## Solar Tides

- The Sun can also create \_\_\_\_\_ on Earth, but because it's so far away, they're \_\_\_\_\_ the strength of the Moon's
- These aren't really \_\_\_\_\_ until they join up with the \_\_\_\_\_ tides
- **Spring Tides** – abnormally large tides that occur during \_\_\_\_\_ and \_\_\_\_\_ Moons
- **Neap Tides** – tides that occur during \_\_\_\_\_ Moons due to the right \_\_\_\_\_ between Earth, Sun, and Moon

# Tides

## Solar Tides

