Name _____

## Neptune: The Mysteries of the Blue Giant

### Short Answer Key

1. Neptune's blue color is primarily due to the presence of methane in its upper atmosphere. Methane molecules absorb red light and reflect blue light, giving the planet its blue appearance.
2. The Great Dark Spot on Neptune is a massive storm system in its atmosphere, similar to Jupiter's Great Red Spot. However, unlike Jupiter's storm, the Great Dark Spot on Neptune is not a permanent feature and can change or disappear over time.
3. Triton has a retrograde orbit, which means it orbits Neptune in the opposite direction of the planet's rotation. This is different from most moon orbits, which are prograde, meaning they orbit in the same direction as their planet's rotation.
4. Urbain Le Verrier used mathematical predictions to suggest the existence and location of Neptune. Johann Gottfried Galle, following Le Verrier's predictions, observed Neptune in the night sky and confirmed its existence, leading to its official discovery.
5. NASA's Voyager 2 spacecraft visited Neptune in 1989. It provided valuable data and images of the planet, its rings, its moons, and its atmosphere, offering insights into Neptune's unique characteristics and features.