Name _____

Shadow Spy Field Report Answer Key

(Note: Accept student observations if based on real tracking; these are the expected/predicted answers.)

Part 1: Sample Shadow Simulation Table

Time of Day	Length of Shadow	Direction of Shadow
9:00 AM	Long	West
12:00 Noon	Short	North or directly under object
3:00 PM	Medium/Long	East

Part 2: Sample Answers

1. The shadow was shortest at **12:00 noon**, because the Sun is at its highest point in the sky, almost directly overhead.
2. The shadow changes direction because the **Sun appears to move across the sky** from east to west, due to **Earth's rotation**. In the morning, shadows point west; in the afternoon, they point east.
3. Earth rotates from west to east. As it turns, the Sun's position in the sky appears to move, changing both the **length** and **direction** of shadows during the day.