Directions

1. On your desk, you will arrange the 8 phases of the Moon in order starting with the New Moon, look for the “Belly Button” (Tycho Crater), it should be facing down
2. Keep the Sun and Earth on the side of your desk
3. Place your landscape in front of you
4. On your worksheet, read each scenario and arrange the Sun and Moon as they would appear in the sky
5. Have it checked, if it is correct, draw it in your notes
6. If not, try again
7. Do NOT go to the next questions unless corrected

HINTS….

● The LIT part of the Moon **ALWAYS** Points to the Sun
● The **SMALLER** the LIT part is, the **CLOSER** they appear in the Sky
● The **BIGGER** the Lit up part is, the **f a r t h e r** apart they appear in the sky
Answer Key

Looking South - the FULL Moon Rises as the Sun Sets

Sun and Moon are rising around the same time, can't see the moon because the farside is lit up by the sun, the nearside is dark

Looking South - the NEW Moon Rises as the Sun Rises
Looking South - As the Sun Rises, where is the WANING Crescent?

Looking South - As the Sun is Setting, where is the WAXING Crescent?
Looking South - As the Sun Sets, where is the FIRST Quarter Moon?

EAST

Looking South - The Sun is the HIGHEST in the sky at Noon, where is the THIRD Quarter Moon?

EAST
Looking South - As the Sun SETS, where is the WAXING Gibbous Moon?

Looking South - When the Sun RISES, where is the WANING Gibbous Moon?
CHALLENGE: Looking South - At Noon, the SUN is the highest in the sky, where is the FULL Moon?

Moon is below the horizon, on the other side of the world it is night time

CHALLENGE: The FULL Moon is the HIGHEST in the sky at MIDNIGHT, where is the Sun?

Sun is below the horizon, on the other side of the world it is day time
Part 2 - The Moon, Earth, and Sun

Directions:
1. Place the phases of the MOON in order at the top of your desk, starting with the NEW MOON.
2. Place the EARTH in front of you
3. Place the SUN to the RIGHT of you
4. Arrange the phases of the Moon AROUND the Earth in the correct order (Tycho Crater - ‘Belly Button’ - points to Earth)
5. Draw the phases on your handout

Part 2 Answers - View From New Jersey

Belly Button (Tycho Crater) points to Earth