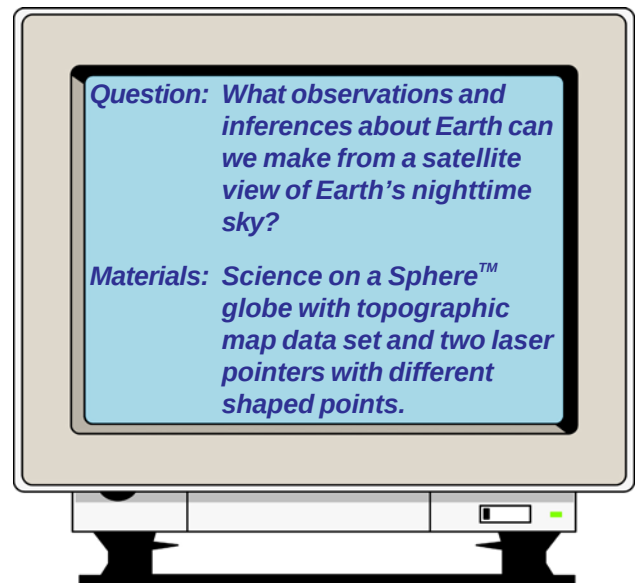
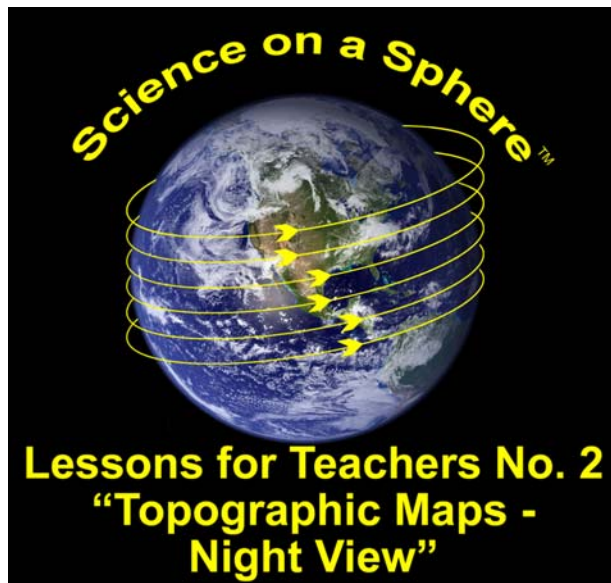




Procedure

Preliminary

(Instruct students to move to the nighttime side of the Sphere and sit in two rows facing the Sphere and perpendicular to it.)

Primary - Part A

The teacher should review the names of continents and oceans for the students. Also, review the names for a sampling of countries on each continent and island locations on the oceans. Use the laser pointer.

Primary - Part B

(This is a relay game to see which team can identify locations of bright and dark areas of Earth's nighttime sky faster.)

1. Give a laser pointer to the first student in each row.
2. The teacher then calls the name of a location that is on the daytime side of Earth.
3. As the named location called by the teacher approaches Earth's nighttime terminus, have the first two students stand up with their pointers on and ready.
4. The first student whose pointer touches the correct location on the Sphere and follows it through the nighttime rotation gets the point for his or her team.





5. As the named location recedes towards Earth's terminus, the students who played move to the back of the line and the next students prepare to repeat the process.
6. Practice once or twice before beginning the game.
7. Repeat sites that you want students to remember.

Locations to be identified. (Add any other interesting locations.)

- | | |
|-------------------------------|--|
| a Australia | a South Korea |
| a Southern California | a Galapagos |
| a Europe | a Indonesia |
| a Florida | a Uzbekistan, Afghanistan, Turkmenistan |
| a Nile Valley | a Himalayan Mountains |
| a Honolulu, Oahu | a New York |
| a Salt Lake City | a Cape Town, South Africa |
| a Rio de Janeiro | a Las Vegas |
| a Denver's Front Range | |



Questions

1. What can you infer about the economic prosperity and/or population of North vs. South Korea? How do you know?
2. Where is most of Europe's population located? How do you know?
3. Do many people live in the Himalayas? How do you know?
4. In Australia, where do most people live? How do you know?
5. What Asian country probably uses the most electric power? How do you know?



Conclusion

(Ask students to answer the question stated at the beginning.)

Nighttime lights show population density, as well as economic prosperity.

Developed countries use more energy in the form of electric power that shows up in the nighttime sky.





Answer Key

(Accept any logical answers and encourage accurate observations and inferences.)

1. South Korea is either more populated, more prosperous, or both, compared to North Korea. There are more night lights (electricity).
2. Western Europe, around the perimeter. There are more night lights.
3. Probably not. Since it appears dark, there are fewer lights and probably fewer people.
4. Around the eastern perimeter. There are more night lights.
5. Japan. There are more night lights.

