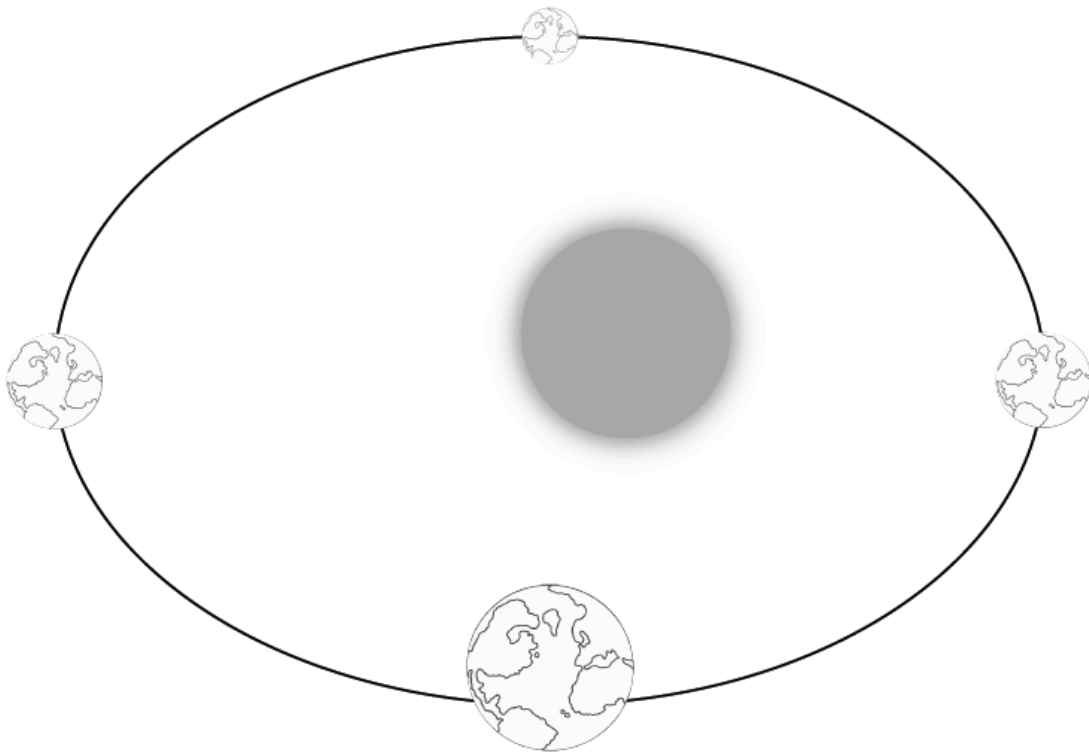


The Earth's Orbit

In groups of four, create a large diagram of the Earth's orbit around the Sun. Your diagram must show the Earth at four locations in its orbit (Summer Solstice, Autumnal Equinox, Winter Solstice, and Spring Equinox). Please be creative and use colors to illustrate the motion of the Earth. The following information must be shown on your diagrams:

- ✓ The terminator line
- ✓ Label night and day (shade in the night)
- ✓ The Earth's axis of rotation (include the angle)
- ✓ The date and the name of that date (i.e. solstice, equinox)
- ✓ The season for NY
- ✓ The length of day and night for NY
- ✓ The orbital velocity (fastest, slowest, medium)
- ✓ Kinetic and potential energy (where each is the highest and lowest)
- ✓ The distance from the Sun (closest, farthest, medium)
- ✓ The apparent diameter of the Sun (largest, smallest, medium)
- ✓ Aphelion and perihelion
- ✓ Where on Earth the Sun will be at the zenith (overhead at noon)
- ✓ Where the sun sets and rises in NY state (NE/NW, E/W, or SE/SW)



Write all group members names on your diagram to receive full credit.