Weather and Energy

Weather is a result of the movement of energy around the planet. This energy evaporates water causing the water cycle and creates areas of warm (low density) and cold (high density) causing wind currents and ocean currents.

Factors That Influence Weather

1. The Sun - the main source of energy for the planet
    a. Nuclear Reaction - Like all reactions sometimes there are fluctuations in the amount of energy produced. Just like a campfire, the Sun has a cycle of high and low energy output

    b. Solar Wind - Particles from the Sun interact with our atmosphere to create the Northern Lights or also called the Aurora Borealis

2. The Earth
    a. Round - the shape of the Earth causes uneven heating of the planet. The Equator receives solar radiation directly (hot) and the poles receives solar radiation at an angle (cold).

b. Rotation - creates night and day so the surface of the Earth is always getting warmer and cooling down and because the Earth spins it causes the air and the oceans to spin as well (Coriolis Effect)

c. Revolution - as the Earth moves around the Sun the distance from the Sun changes. More energy is received when the Earth gets closer

d. Tilted - as the Earth spins on an angle and moves around the Sun the planet gets Seasons

3. Methods of Energy Transfer
   a. Radiation (Light) - energy travelling as waves. Some forms of radiation can enter our atmosphere some gets reflected and some get absorbed

   b. Conduction - As the surface of the Earth absorbs radiation air particles directly above the surface get energy by the collisions of particles on the ground.

   c. Convection - as the air particles get more energy they move faster and create areas of low density. This low density air is pushed up by cooler high density air causing convection currents

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6. Methods of Energy Transfer
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    b. Conduction -

    c. Convection -