## Solar Events and Effects

- Approx. size of Earth
- 1. Nuclear fusion
- 2. Radiative zone
- 3. Convective Zone
- 4. Chromosphere
- 5. Corona
- 6. photosphere







### **C-notes**



## **Solar Events**

\*Phenomena that occurs on Sun that have been observed from Earth.

\*Most involve the
photosphere

**\*** Most are related to magnetic fields on the Sun

**\***Radiation or charged particles are released.





**Solar Wind:** streams of charged particles that leave the sun mostly protons & electrons





# **Sunspots** Areas of cooler than surrounding areas on the **Photosphere that** appear dark





# Solar Flaressudden **Eruption of** radiation





# **Coronal Mass Ejections:** Massive amounts of plasma From the corona are ejected

### **C-notes**

### Sunspots and the 11 year cycle





Fact: Sunspots increase and decrease in an 11 year cycle IMPORTANCE: The number of sunspots seem related to solar activity and events

- A. The more sunspots, the more solar events
- B. The number of sunspots relates to the amount of energy that is coming from the sun
- C. The number of sunspots may have an effect on Earth's climate and/or weather

### **C-notes**

### Solar Event Effects on Earth





- Aurora: interaction between charged particles and the Earth's atmosphere
- Disrupt radio/satellite signals
- Can cause power failures
- Burn out electronics
- Can cause extinctions