

Name Key  
 Date \_\_\_\_\_

### Earth's Atmosphere

Layer	Altitude (km)	Temperature	Composition (Types of gases present)	Important Characteristics
<u>Troposphere</u> "change"	8-14 km above the earth 0-12 km avg	warm at bottom, cold at top -60 to 20°C	78% Nitrogen 21% Oxygen 1% Argon, CO <sub>2</sub> , water vapor	• Weather occurs here • Jet Stream (at top)
<u>Stratosphere</u> "layer"	35 km thick 12-50 km above	Cold at the bottom, warm at the top -60 to 0°C	Layered by density	• ozone layer is here (absorbs harmful ultraviolet radiation)
<u>Mesosphere</u> "middle"	35 km thick 50-80 km above	0 to -90°C	gases are mixed up	• meteors burn here
<u>Thermosphere</u> "heat"	513 km thick 80-500 km above	very hot, -90°C to 3400°C+	density decreases ↓	• International Space Station • Auroras • Low orbit satellites • Ionosphere (reflects radio waves back to Earth)
<u>Exosphere</u> "outside"	10,000 km thick 500 km - halfway to the moon	Not detected, Particles too far apart		•

Include the following "Important Characteristics" in your chart:

- |   |             |
|---|-------------|
| Auroras                                       | Ionosphere  |
| Meteors burn                                  | Jet Stream  |
| Weather occurs                                | Ozone layer |
| Satellites and space craft orbit here         |             |
| Where radio waves are reflected back to Earth |             |