**EARTH’S ATMOSPHERE – Part 1**

1. Open Google Earth and find the Mars-Earth Comparison folder.
2. If you are not already there, switch to Google Earth.
3. Double click on the “Atmosphere” folder.

* **How can you tell Earth has an atmosphere?**
* **Complete the table below with data from a weather station close to your school:**

**Currently in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, as of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_:**

**\_\_°F/ \_\_°C**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**(*current conditions*)**

Humidity: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Winds: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

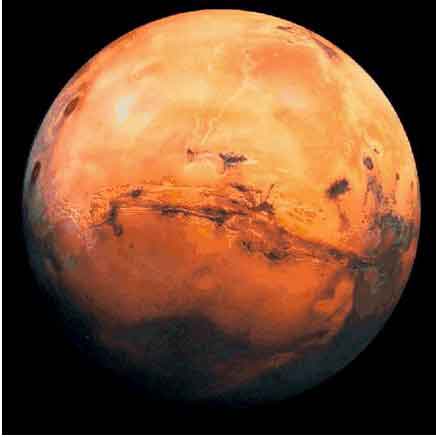
Pressure: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Dewpoint: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Today Tonight Tomorrow Tomorrow Night**

**\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_**

1. **Can you find a major storm anywhere around the globe? What does it look like?**

**MARS’ ATMOSPHERE**

1. Switch to Google Mars and double-click on the “MARS” subfolder.
2. **What is the main weather event in Mars?**
3. Double click on “Mars’ North Pole.”

* **What feature dominates the surface of Mar’s North Pole? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
* **How do these features form?**

1. Double Click on “Rabe Crater” and “Rabe Crater close up.”

* **Why do you think sand dunes form in the central part of craters?**

1. Double click on “Proctor Crater” and “Proctor Crater close up”.

* **Sketch a set of dunes in this box**
* **Why are these dunes dark-colored?**
* **Why does Mars’ thinner atmosphere help the process of sand dune formation?**

1. Double click on “Frost on dunes.”

* **The amount of ice on the dunes and polar regions changes as the Martian year goes by. What does this tell you about Mars?**

**EARTH’S ATMOSPHERE – Part 2**

1. Switch to Google Earth and double-click on the “EARTH” subfolder.
2. Double click on “White Sands National Monument, NM” and

“White Sand Dunes”

* **Sketch a set of dunes in this box**
* **What process shapes these dunes?**
* **What are these dunes made up of?**
* **How did all that material get there?**

1. Double click on “Grand Erg Occidental Desert” and “Grand Erg close up”.

* **What is a main characteristic of the environment of the Grand Erg?**
* **How are the shapes of the Erg’s dunes similar to the dunes on Mars? How are they different?**
* **What are the requirements for a dust storm to occur?**