

Meteorology Misconceptions



Created by Marie @ The Homeschool Daily

**Brainstorm as many words
or phrases that you can
think of when you hear the
word, “Meteorology.”**



What words did you brainstorm for the term, “Meteorology?”

- **Weather**
- **Climate**
- **Tornadoes**
- **Hurricanes**
- **Humidity**
- **Air pressure**
- **Precipitation**
- **Temperature**
- **Wind**
- **Thunderstorms**
- **Clouds**
- **Air masses**
- **Cold front**
- **Warm front**
- **Altitude**
- **Atmosphere**
- **Heat transfer**
- **Greenhouse effect**

Did you think of any of these words?

Let's look at 10 common Meteorology Misconceptions



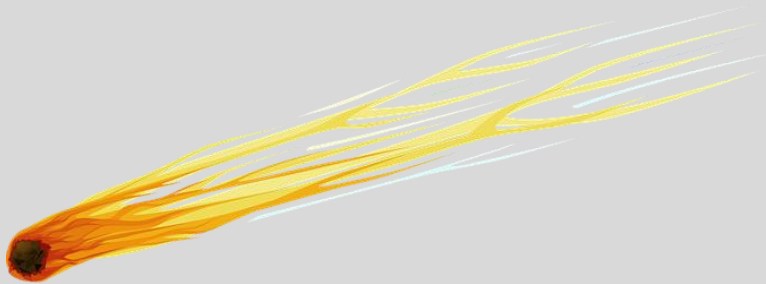
Meteorology

Misconception #1

Misconception

- Meteorology is the study of meteors.

Truth

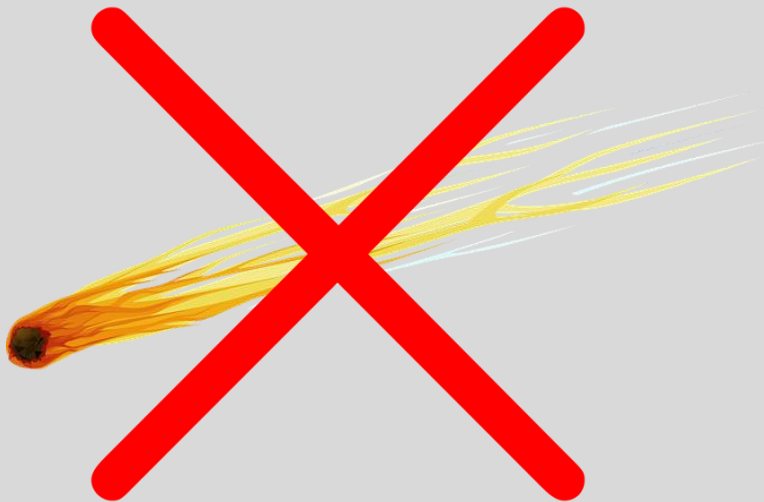


Meteorology

Misconception #1

Misconception

- Meteorology is the study of meteors.



Truth

- Meteorology is the study of weather.

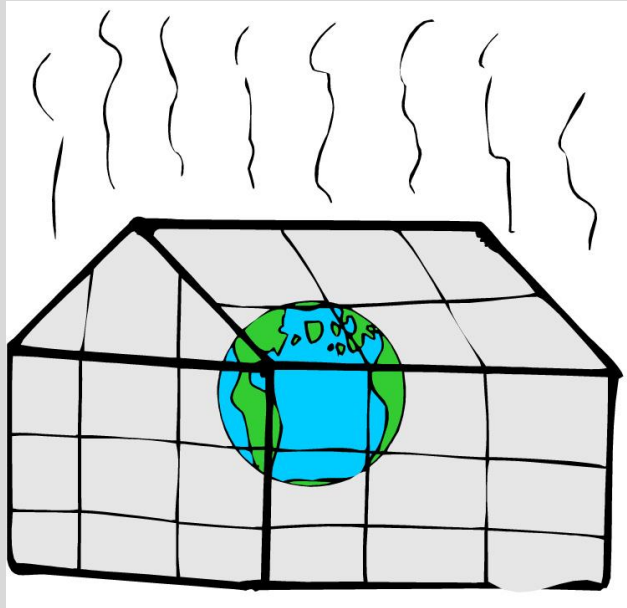


Meteorology

Misconception #2

Misconception

- Our atmosphere traps the heat from the sun.



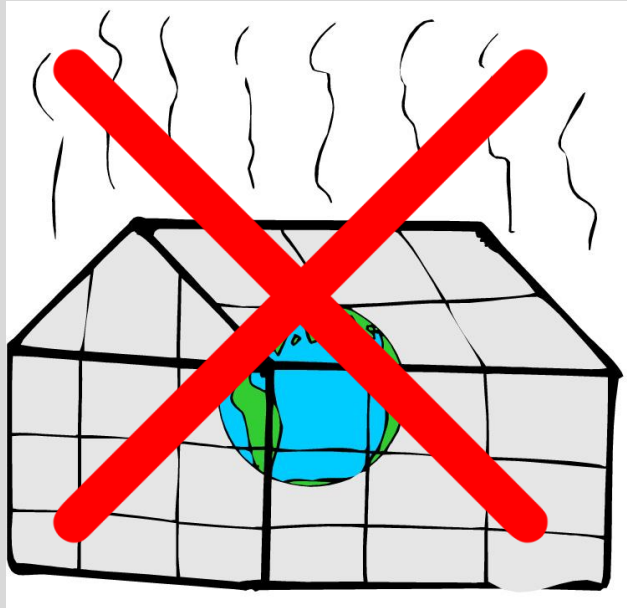
Truth

Meteorology

Misconception #2

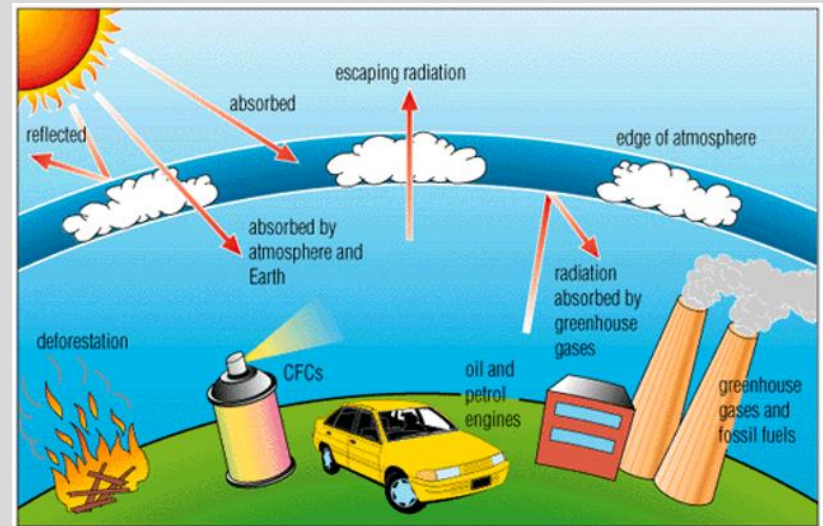
Misconception

- Our atmosphere traps the heat from the sun.



Truth

- Our atmosphere absorbs the radiation from the sun, heating the Earth.



Meteorology

Misconception #3

Misconception

- Rain clouds move around the Earth and eventually come back to us.



Truth

Meteorology

Misconception #3

Misconception

- Rain clouds move around the Earth and eventually come back to us.



Truth

- Rain clouds form as water droplets condense into vapor in the atmosphere. When the atmosphere can no longer support the weight of the droplets, they fall as rain.

Meteorology

Misconception #4

Misconception

- Seasons are caused when the Earth moves closer to and farther from the Sun.

Truth



Meteorology

Misconception #4

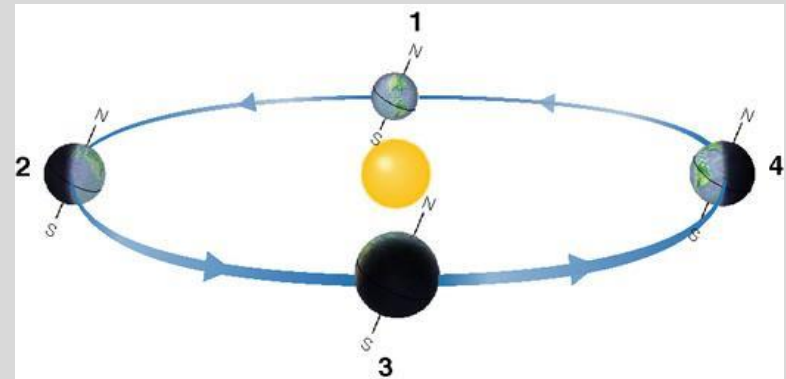
Misconception

- Seasons are caused when the Earth moves closer to and farther from the Sun.



Truth

- Seasons are caused by the tilt of the Earth on its axis as it rotates around the Sun. This tilt changes the angle of the Sun's rays striking the Earth.



Meteorology

Misconception #5

Misconception

- We should not be concerned with events that occur on the other side of the planet because they have no effect on us.

Truth



Meteorology

Misconception #5

Misconception

- We should not be concerned with events that occur on the other side of the planet because they have no effect on us.



Truth

- Events, such as volcanic eruptions can have global effects on weather patterns and climate throughout the world.



Meteorology

Misconception #6

Misconception

- The air around the top of a very high mountain is exactly the same as the air around the bottom of the mountain.

Truth



Meteorology

Misconception #6

Misconception

- The air around the top of a very high mountain is exactly the same as the air around the bottom of the mountain.



Truth

- The properties of the atmosphere, such as pressure and temperature, change as elevation changes.



Meteorology

Misconception #7

Misconception

- Only clouds that produce rain contain water.

Truth



Meteorology

Misconception #7

Misconception

- Only clouds that produce rain contain water.



Truth

- All clouds are condensed water molecules.



Meteorology

Misconception #8

Misconception

- The oceans have no effect on our climate.



**Oceans have no effect
on the climate.**

Truth

Meteorology

Misconception #8

Misconception

- The oceans have no effect on our climate.



Truth

- Because the oceans are such large bodies of water, they hold a massive amount of heat. Therefore, the oceans have a great impact on climates.



Meteorology

Misconception #9

Misconception

- The Sun's rays hit the Earth the same throughout the year.

Truth



Meteorology

Misconception #9

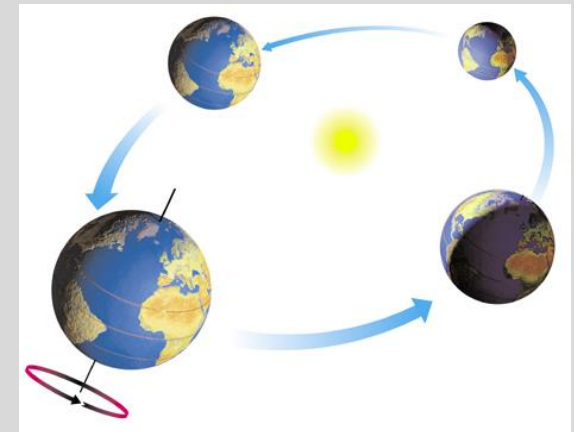
Misconception

- The Sun's rays hit the Earth the same throughout the year.



Truth

- The angle of the Sun's rays striking the Earth changes throughout the year. This is because the Earth rotates on a tilted axis and revolves around the Sun causing our seasons.



Meteorology

Misconception #10

Misconception

- Clouds are only found in the sky.

Truth



Meteorology

Misconception #10

Misconception

- Clouds are only found in the sky.



Clouds can be in the sky and or touching the ground.

Truth

- Clouds can form very close to the surface of the Earth (fog).



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“Hast thou not known? hast thou not heard, *that* the everlasting God, the LORD, the Creator of the ends of the earth, fainteth not, neither is weary? *there is* no searching of his understanding.” Isaiah 40: 28