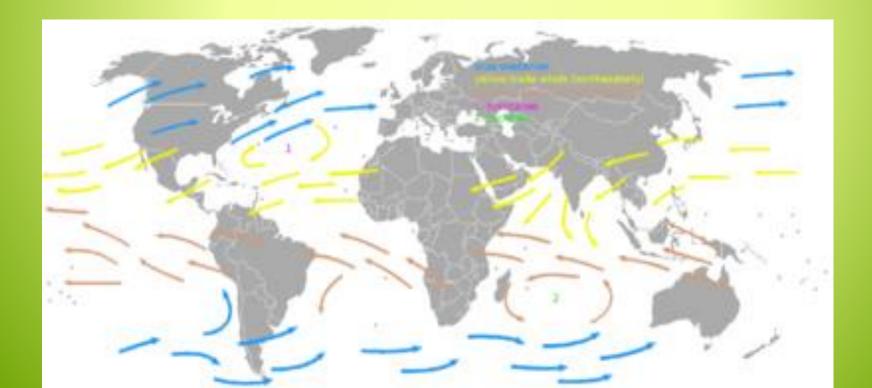
Study Notes Properties of the Atmosphere

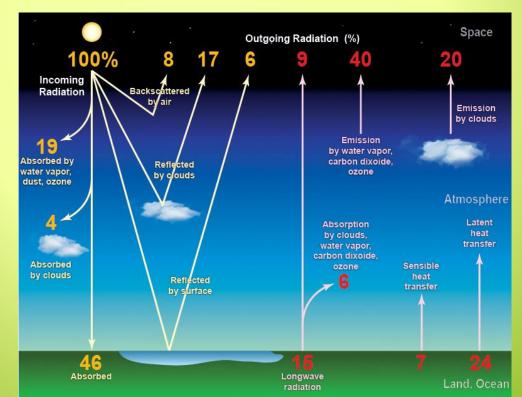
The Atmosphere Standard 3 Objective 1 Most of the <u>weather</u> in the United States flows from <u>west</u> to <u>east</u>.



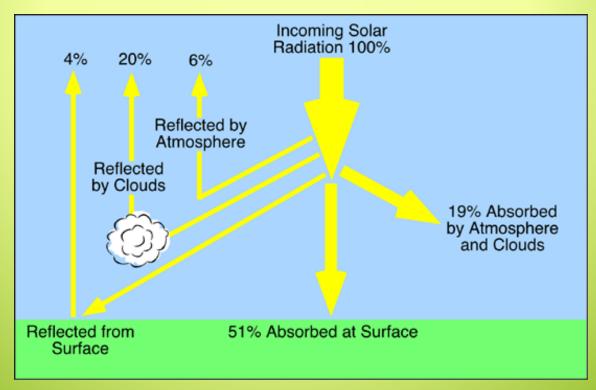
Sunlight is changed into <u>heat</u> when it is <u>absorbed</u> by Earth



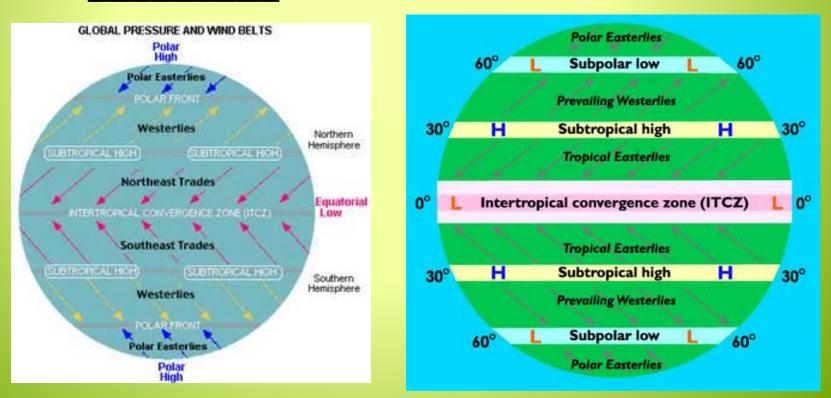
 Solar radiation that is not <u>reflected</u> back into the atmosphere is <u>absorbed</u> by surface materials.



 <u>70</u> percent of <u>radiation</u> from the Sun is <u>absorbed</u> by Earth's surface and by <u>clouds</u> and air.



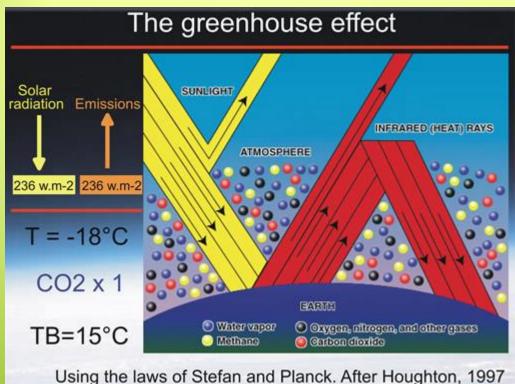
 Prevailing winds that blow from <u>west</u> to <u>east</u> through the <u>middle</u> of the United States are called westerlies.



 The <u>unequal</u> heating of air masses causes atmospheric <u>circulation</u>.

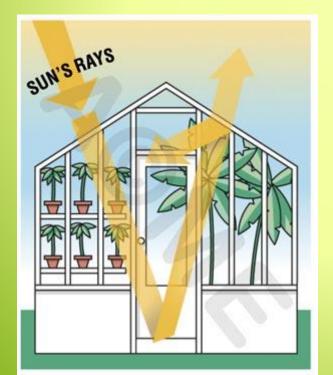


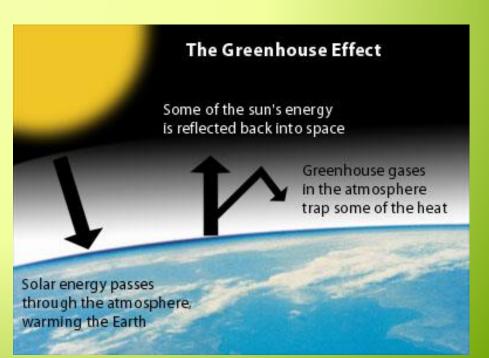
The uneven heating of earth creates a temperature imbalance, moving warm air from Equatorial Regions to cold Polar Regions by convection. This simplistic convection current begins when hot air rises at the equator and colad air sinks at the poles--thus creating our wind! Temperatures <u>increasing</u> inside a sealed container under a lamp would be an example of the <u>greenhouse</u> <u>effect</u>.



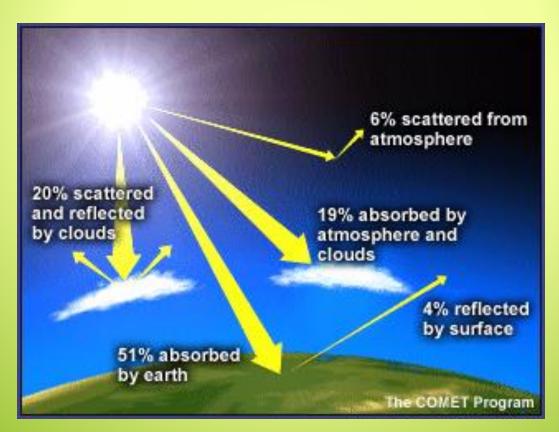
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 The <u>warming</u> of the surface and lower <u>atmosphere</u> of Earth that occurs when <u>carbon</u> <u>dioxide</u>, water vapor, and other gases in the air <u>trap</u> the <u>heat</u> near Earth's surface is known as <u>greenhouse</u> <u>effect</u>.

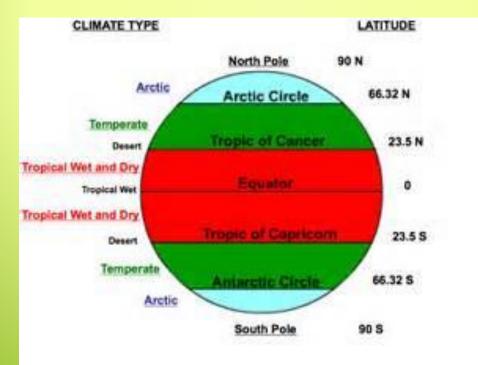




• <u>70</u> percent of the sun's <u>light</u> that reaches Earth is changed to <u>heat</u>.

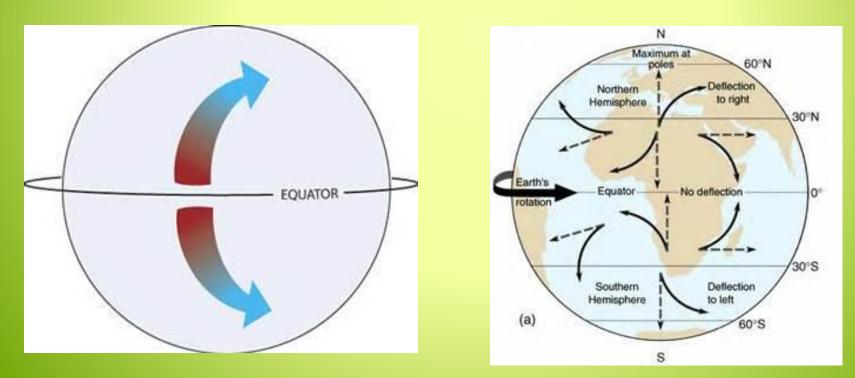


 The areas near the <u>equator</u> have different <u>climate</u> and <u>weather</u> than areas near the <u>poles</u> because they receive more solar <u>energy</u> than the areas near the poles.

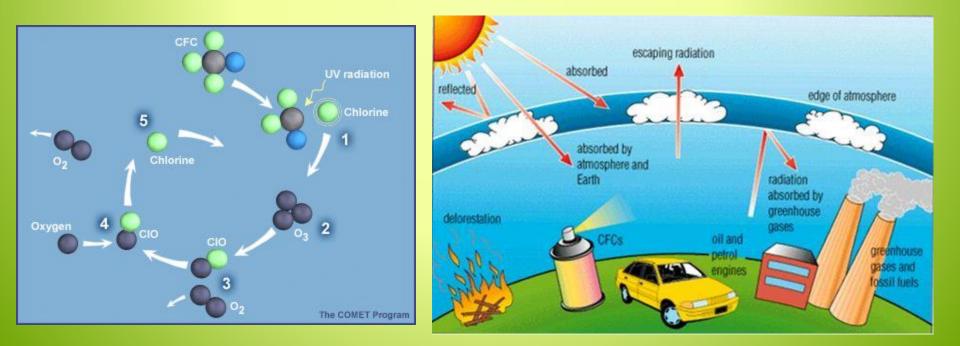


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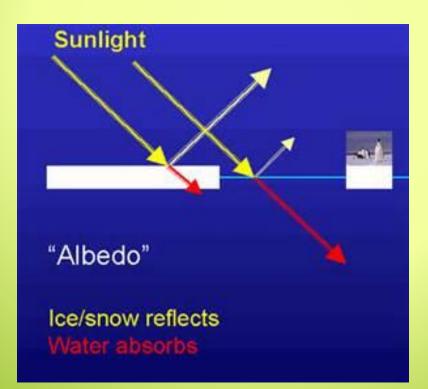
 Because of the <u>Coriolis</u> <u>Effect</u>, an object that travels north from the equator will <u>curve</u> to the <u>right</u>.



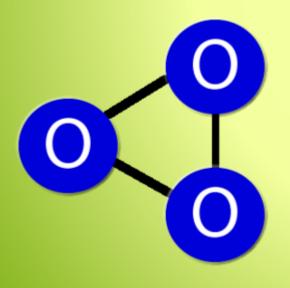
 Governments around the world banned chemicals called <u>CFC's</u> because they destroy <u>ozone</u> in the upper atmosphere.

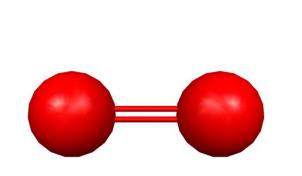


 <u>Albedo</u> is the fraction of solar <u>radiation</u> reaching Earth that is reflected.



 A molecule of ozone has <u>3</u> oxygen atoms and a molecule of atmospheric oxygen has <u>2</u> oxygen atoms

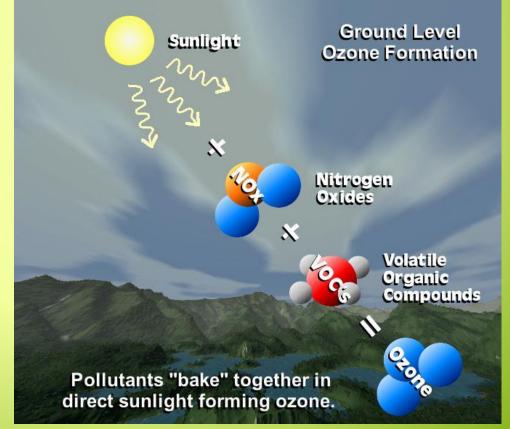




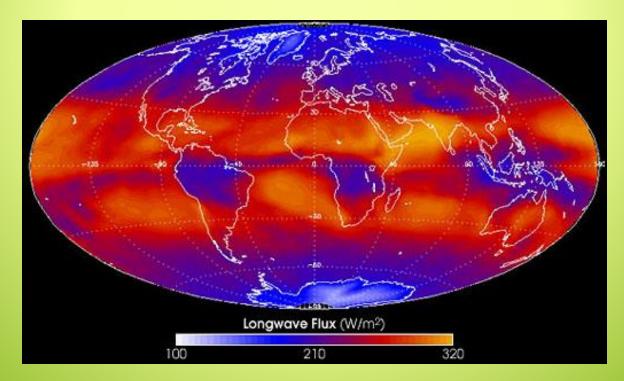
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• <u>Ozone</u> is considered a pollutant in the <u>troposphere</u> where it impairs normal <u>lung</u>

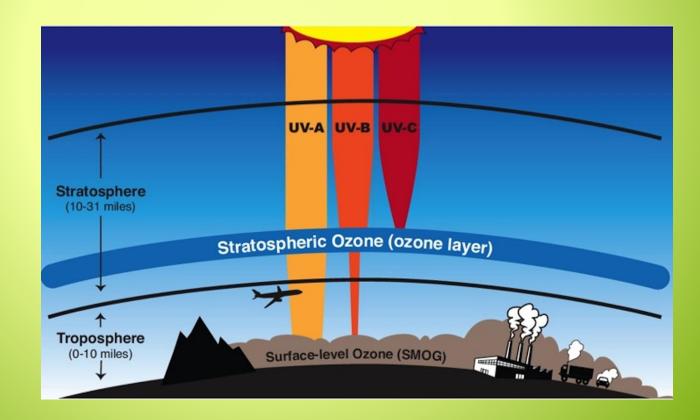
function.



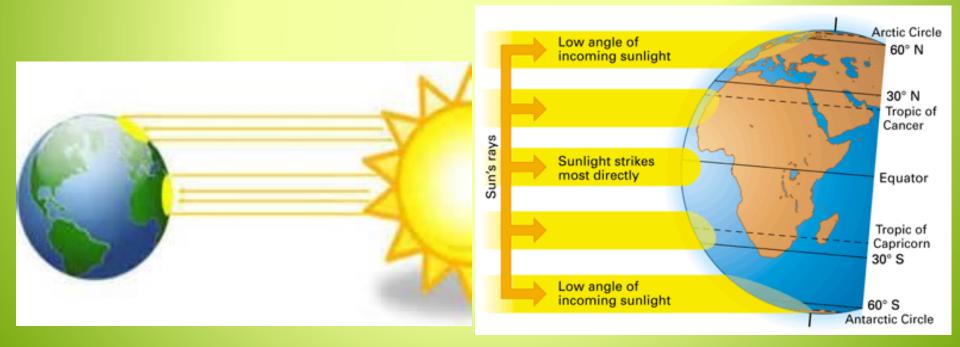
 <u>Sunlight</u> is changed into <u>heat</u> when it is <u>absorbed</u> by the atmosphere and Earth's surface



• The <u>ozone</u> layer protects living things from <u>ultraviolet</u> radiation.

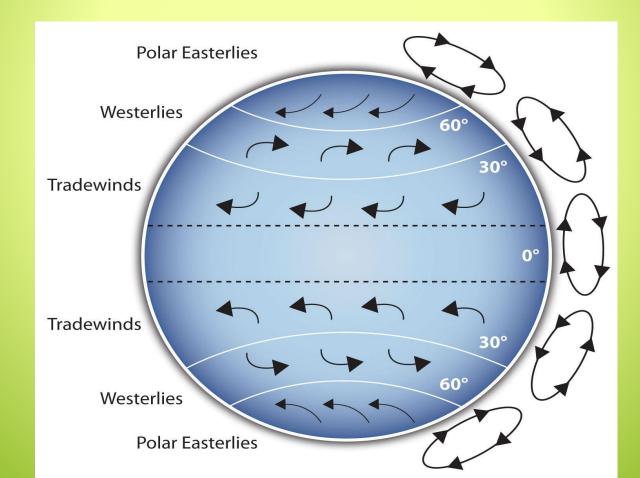


• The sun's rays do the <u>greatest</u> heating when the sun is directly <u>overhead</u>.



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• The <u>curving</u> of the paths of winds due to the <u>rotation</u> of Earth is called the <u>Coriolis</u> <u>Effect</u>.



The End

