

*Table 1 Summary of Lab Stations*

LAB	Section of Flash Demonstrated	Purpose
<p><b>A. Blue Print:</b>  <b>There is O<sub>2</sub> Here!</b>            (Simulation of percentages of gasses in air we breathe)</p>	<p>Capillaries surrounding alveoli and capillaries surrounding body cells.</p>	<p>Demonstrates that air consists of a mixture of gasses and our body is able to select oxygen from the mix for our cells to use.</p>
<p><b>B. Blue Print:</b>  <b>Dust Removal!</b>            (Collection of particulates in air we breathe)</p>	<p>Upper respiratory and inside at alveoli level.</p>	<p>Demonstrates particulates in the air that we breathe – our respiratory system is able to filter out many of these particulates and moisten the air we breathe.</p>
<p><b>C. Blue Print:</b>  <b>Everything is Expanding and Contracting!</b>            (Bottle with balloon inside and simulated diaphragm)</p>	<p>Inspiration and expiration</p>	<p>Simulates the work of the diaphragm, which changes the volume of the chest cavity – this affects air pressure in and around the lungs.</p>
<p><b>D. Blue Print:</b>  <b>Just enough pressure!</b>            (Syringe with marshmallow inside)</p>	<p>Inspiration and expiration</p>	<p>Demonstrates how changing the volume of a gas (air) affects pressure exerted by the gas (air)</p>
<p><b>E. Blue Print:</b>  <b>Exchange It! (B-Blue color change in presence of CO<sub>2</sub>)</b></p>	<p>Capillaries surrounding alveoli and capillaries surrounding body cells.</p>	<p>Color change demonstrates that we exhale carbon dioxide, providing evidence of gas exchange in the body.</p>
<p><b>F. Blue Print:</b>  <b>Model of Diffusion!</b>            (Baggie, starch, iodine, and water)</p>	<p>Capillaries surrounding alveoli and capillaries surrounding body cells.</p>	<p>Demonstrates the movement of molecules through a semi-permeable membrane in presence of water.</p>
<p><b>G. Blue Print:</b>  <b>Branching Out!</b>            (Cauliflower Lab)</p>	<p>Respiratory Tree</p>	<p>Demonstrates how the respiratory tree branches out to cover more area in lungs. This increases area for gas exchange to occur.</p>
<p><b>H. Blue Print:</b>  <b>Break down the surface tension! (Surfactant)</b></p>	<p>Alveoli</p>	<p>Inside walls of alveoli are lined with water – tends to collapse the alveoli due to surface tension of water. Surfactant (simulated with soap) reduces surface tension so alveoli remain open.</p>