

Physical Properties of Matter Activities

Properties of Solids	Properties of Fluids	Behavior of Gases
stress, tension, compression	Bernoulli's and Archimedes'	Boyle's and Charles' Law
<p>Online Lab: Building Big http://www.pbs.org/wgbh/buildingbig/lab/index.html</p> <p>Challenges: "design" a bridge, dome, skyscraper, tunnel, and dam http://www.pbs.org/wgbh/buildingbig/abt_chall.html</p> <p>Build a Bridge (very cool) http://www.pbs.org/wgbh/nova/tech/build-bridge-p4.html</p> <p>Density PhET Simulation http://phet.colorado.edu/en/simulation/density</p>	<p>Nasa Bernoulli's principle "What is Lift" and Where does lift come from: http://www.knowitall.org/nasa/simulations/flight/lift.html</p> <p>2 Bernoulli Simulations: Interactive http://mitchellscience.com/bernoulli_principle_animation</p> <p>http://www.science-animations.com/support-files/bernoulli07.swf</p> <p>Interactive Activity on Flight http://www.fi.edu/flight/own2/index.html</p> <p>Main Forces on a Plane http://library.thinkquest.org/2819/forces.htm</p> <p>Diagram & Explanation of BP http://library.thinkquest.org/2819/forces.htm</p> <p>Newton's Law and Airplanes http://www.grc.nasa.gov/WWW/K-12/BGA/Sheri/newton's_first_law_act.htm</p> <p>http://www.grc.nasa.gov/WWW/K-12/airplane/newton1.html</p> <p>http://www.grc.nasa.gov/WWW/K-12/BGA/Sheri/newton's_second_law_act.htm</p> <p>Plane Game http://www.grc.nasa.gov/WWW/K-12/UEET/StudentSite/games/theplanegame.htm</p> <p>Buoyancy Activity: PhET http://phet.colorado.edu/en/simulation/buoyancy</p>	<p>Mini-Lab: Boyles' Charles Law http://www.jdenuno.com/Chemistry/Labs/GasLaws.swf</p> <p>Online Simulation Boyle's Law http://content.blackgold.ca/ict/Division4/Science/Div.%204/Boyles%20Law/boyleslaw.htm</p> <p>Online Simulation: Charles' Law http://www.grc.nasa.gov/WWW/k-12/airplane/aglussac.html</p> <p>Activity: PhET (Properties of Gases) http://phet.colorado.edu/en/simulation/gas-properties</p>

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<p>Create: Construct a road sign support http://teachers.egfi-k12.org/lesson-construct-road-sign/ Build an Earthquake-proof structure http://teachers.egfi-k12.org/activity-earthquake-proof-structure/ Build a Paper Tower http://teachers.egfi-k12.org/lesson-build-a-tower/ Build a Bridge http://teachers.egfi-k12.org/lesson-tension-and-compression/ or http://teachers.egfi-k12.org/lesson-bridge-swe/ Old Mine Marble Slide http://www.looledo.com/index.php/the-old-mine-shaft-marble-slide.html</p>	<p>Create: Wind Gauge http://www.grc.nasa.gov/WWW/k-12/problems/Lorri/wind_gauge_act.htm#PATTERN Design an Airfoil http://www.grc.nasa.gov/WWW/k-12/problems/Richard1/Foilsim1_act.htm Straw-“Rocket” Aeronautics http://teachers.egfi-k12.org/straw-rocket-aeronautics/ Build a Canoe http://tryengineering.org/lessons/canucanoe.pdf</p>	<p>Create: Mini Hot Air Balloon http://www.wikihow.com/Make-a-Mini-Flyable-Hot-Air-Balloon-with-Candles</p>