

Guest Hollow's High School Conceptual Physics Sample (Printable version of the schedule)

www.guesthollow.com

Week 13					
	Day 1	Day 2	Day 3	Day 4	Day 5
<u>Exploring the World of Physics</u>					
Some of the science topics this week: solids, liquids, gases, elasticity, Hooke's Law, pressure, barometer, Pascal's Principle, hydraulics, density, buoyancy, Archimedes' Law of Buoyancy, ideal gas law, Boyle's Law, Charles's Law, Bernoulli's Principle People: Robert Hooke, Robert Boyle, Blaise Pascal, Jacques Charles, Joseph Gay-Lussac, Thomas Graham, James Clerk Maxwell, Daniel Bernoulli					
Reading	Chapter 7: States of Matter				p. 77 Chapter 7 questions
Reading Assignments					
<u>Mad About Physics</u>	p. 27-29 Questions 77, 78, 81, 82	p. 30-32 Questions 85, 87, 88, 91	p. 32-34 Questions 93, 94, 97	p. 36-38 Questions 102, 103, 104, 105	
<u>The Way Things Work Now</u>	Part 2 Harnessing the Elements p. 92-93 Intro	p. 94-101 Floating density, submersible, submarine, boat	p. 102-105 windsurfer, yacht, airship, hot-air balloon	p. 106-119 Flying airplane, flying machines, wing, helicopters, hydrofoil	p. 120-127 Pressure Power reciprocating pumps, rotary pumps, pneumatics
Mixing History & Science					
<u>Rocket Man</u>	Chapter 1	Chapter 2	Chapter 3	Chapter 4	Chapter 5
Activities & Assignments					
	<u>Physics.org – Bernoulli balls</u> (principles of fluid flow) <u>Video for above link</u>			Draw your own version of <u>this states of matter comic</u> .	
<u>Junk Drawer Physics</u>			p. 164-166 Super Squirt Bottle (air pressure vs. water pressure)		p. 167-168 Plumber Strength (air pressure)
Printables					
	No Guest Hollow Workbook pages				
Videos					
	Sprott: <u>Carbon Dioxide Trough</u> Eureka: <u>Molecules in Solids</u>	Sprott: <u>Weight of Air</u> Eureka: <u>Volume & Density</u> TED-Ed: <u>How taking a bath led to Archimedes' principle</u>	Sprott: <u>Neutral-buoyancy Balloon</u> Eureka: <u>Molecules in Liquids</u>	Sprott: <u>Exploding Balloons</u> TED-Ed: <u>Solid, liquid, gas and ... plasma?</u> The Sci-Guys: <u>Grape Plasma</u>	Sprott: <u>Exploding Soap Bubbles</u> Eureka: <u>Buoyancy</u> TED-Ed: <u>History of the barometer</u>

Online					
	PHET Online lab: States of Matter: Basics	TED-Ed video review questions	PHET Online lab: Density and Buoyancy	TED-Ed video review questions	TED-Ed video review questions
Note: For the density and buoyancy lab, click on the about arrow for information about the lab. Explore!					