**IB Physics**

Chapter 6 Syllabus

Work and Energy

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| Block | Class  | Due  |
| 1Dec 15/16 | -Calculating work-Energy-Potential and Kinetic Energy-Springs and force and energy-Spring Constant Graph assignment – (come to the next class with the points and error bars made) | **Read:** 6.1-4 |
| 2Dec 17/18 | -Graphing the Spring Constant – Slope, and uncertainty of slope-Introduction to Conservation of energy -Staring death in the eye-Conservation of Energy Whiteboards-Hand out FA 5.1, 5.2, 5.3, 6.1, 6.2 | **Video Flip: Making the Spring Constant Graph (Part I and Part II to 4:30)****Practice:**  Ch 6: 4(8100 J), 10(1.2E6 J), 15, 18(-5.32E5 J), 26(0.34 m), 31 **Read:** 6.5-9**Turn In: Spring Constant Graph** |
| 3Dec 19/Jan 5 | -Work on Energy 1, 4, 3, 5, 6, 7, 8-Power-Efficiency | **Read:** 6.10 |
| 4Jan 6/7 | -Rollercoasters -Work on Energy 9 - 14, FA 6.1, 6.2-Energy Lab brainstorm | **Practice:** Energy: 1,4,3,5,6,7,8 **(In class)**Ch 6:64(8.1E6 J),58(28.2 s),59,66(10.6 W) **(Home)** |
| 5Jan 8/9 | **Summative Assessments:****SA 5.2 - Vertical Circle****SA 5.3 – Gravity and Orbit****SA 6.1 - Work and Power****SA 6.2 - Conservation of Energy**  | **Video Flip: Energy Lab ideas** **Practice:** Ch 6: Energy: 9-14**Turn In:** FA 5.1, 5.2, 5.3, 6.1, 6.2 |
| 6Jan 12/13 | -Energy Lab-Play with Coaster program | **Practice:**  Ch 6: 39, 40(2.5r), 35, 37 |
| 7Jan 14/15 | -Work on lab and problems -Experts for Assessments | **Practice:** Ch 6: 42(104 N/m),43,52(10. m/s),55 Energy: 15 (EC) |
| 8Jan 16/20 | **Momentum!!!!** | **Turn In: Energy Lab** |
| Finals | **Final Assessment Makeup** |  |
| Assignments* 2 Labs:
	+ Spring Constant Graph of data I give you with error bars and uncertainties
	+ Either Human Power output or a lab of your own choosing
* 5 Formative/ 4 Summative Assessments:
	+ 5.1 – Centripetal Force and Acceleration\*
	+ 5.2 – Vertical Circle
	+ 5.3 – Gravity and Orbit
	+ 6.1 - Work and Power
	+ 6.2 - Conservation of energy

\*no summative | \*Handouts:Syllabus-Work and EnergyWorksheet-EnergyLab-Spring Constant GraphLab-Energy LabIA-DCP-DescriptionMisc-MockTest |