Physics G

Work and Energy

(Chapter 5 Syllabus)

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| Block | Class | Assignments |
| 1 Jan 21/22 | -Why it is important to consider the weight of a barrel of bricks.  -It's all Uphill lab  -Calculating work  -Work, Weight and Friction | **Turn In:** It's all Uphill (in class)  **Read:** 5.1 |
| 2  **Jan 25/26** | -Power  -Power, work and weight Jambalaya!! | **Practice:**  W+P: 1-6, P5A: 1,3[[1]](#footnote-2)  **Read:** 5.4 |
| **Finals**  **Week** | **Final – see chapter 4 website for details** |  |
| 3  **Feb 2/3** | -Efficiency  -Energy  -Hand out A5.1 problems (Do at least #1, #2)  -Kinetic energy  -Potential Energy | **Practice:**  W+P: 7-15,P5F: 1(65 kW), 3  **Practice:** A5.1 problems  **Read:** 5.2 |
| 4  **Feb 4/5** | -Conservation of energy  -Staring death in the eye  -Solving conservation of energy problems (WB) | **Practice:**  Energy: 1-9  **Read** 5.3 |
| 5  **Feb 8/9** | -Work on conservation of energy problems (A5.2: #1, 2)  -Roller coasters explained | **Practice:**  Energy: 10-15 |
| 6  **Feb 10/11** | -Human Power output lab (explained)  -Get Human Power output data  -Pass out FA 5.0, 5.1, 5.2  -Work on Human Power output calculations | **Practice:** A5.2 problems  **Turn In:** Human Power Output Lab  **Turn In:** A5.1 problems, #1 and #2 |
| 7  **Feb 12/16** | -Intro to Trebuchets  -Nova: Trebuchet video  -Trebuchet simulations | **Practice:**  A5.2 problems |
| 8  **Feb 17/18** | -Play with Roller coasters  -Finish FA 5.0, 5.1, 5.2 | **Turn In:** A5.2 problems, #1 and #2 |
| 9  **Feb 19/22** | Summative assessments on:  5.0 - Work and Energy  5.1 - Efficiency and Power  5.2 - Conservation of Energy | **Turn in:** FA 5.0, 5.1, 5.2 |

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| Assignments:   * 2 Labs:   + It's All Uphill/15 pts   + *Human Power Output lab*/30 pts * 2 formative problems sets:   + A5.1 problems #1 and #2/(10 pts)   + A5.2 problems #1 and #2/ (10 pts) * 3 Formative/Summative Assessments:   + 5.0 - Work and Energy   + 5.1 - Efficiency and Power   + 5.2 - Conservation of Energy | Handouts:  This Syllabus  FA5.0  FA5.1  FA5.2  Practice for 5.1  Practice for 5.2  Worksheet-WorkAndPower  Worksheet-Energy  Worksheet-Energy 2  Lab-HumanPowerOutput |

1. P5A means Practice 5A (it’s on page 170 in your book) [↑](#footnote-ref-2)