**IB Physics**

Linear Momentum

Chapter 7 Syllabus

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| A/B | In Class: | Assignments: |
| 1 Jan 21/22 | -Momentum  -Impulse and Momentum  -Rocket Science | **Read:** 7.1,3 |
| 2  **Jan 25/26** | -More Rocket Science  -Conservation of Momentum | **Read:** 7.2  **Chapter 7:** 1, 3 |
| Finals  Week | **Final – see chapter 6 website for details** |  |
| 3  **Feb 2/3** | -More COM  -Energy vs. Momentum  -Momentum Demos part I | **Chapter 7:** 4(-0.901 m/s), 5 |
| 4  **Feb 4/5** | -Momentum Demos part II  -Explanation of Labs and video flippage  -Clocking the Physics Cannon  -Hand out FA 7.1, 7.2, 7.3 | **Read:** 7.4-6  **Chapter 7:** 7, 12(0.69 m/s)  **Turn in: Cannon Lab** |
| 5  **Feb 8/9** | -Work on Labs | **Video Flip:** Conservation of Momentum lab  **Video Flip:** Vector Momentum lab  **Read:** 7.7 |
| 6  **Feb 10/11** | -Work on Labs | **Turn In:** Ch 7: 1, 3, 4, 5, 7, 12 |
| 7  **Feb 12/16** | Summative Assessments on:  7.1 - Impulse and Momentum  7.2 - Conservation of Momentum  7.3 – Momentum and Energy  -Finish labs | **Turn In:** FA 7.1, 7.2, 7.3  **Turn in:** Vector Momentum Lab  **Turn in:** Conservation of Momentum lab (CE) |
| 8  **Feb 17/18** | Rotational Mechanics!!! | It’s super cool, it is just like all the stuff we have learned, but it applies to rotating objects. So there is kinematics, force, momentum, energy. One of my FAVORITE UNITS. It kinda kicked their butts last year, so do study |

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| 3 Labs:   * Cannon Lab (mini lab done in-class) * Conservation of momentum lab (with the air track – collision of gliders) * Vector Momentum Lab – 2-D vector momentum collision (simulation from the computer)   3 Formative/Summative Assessments   * 7.1 – Impulse and momentum (Ft = mv) * 7.2 – Conservation of momentum * 7.3 – Energy and Momentum   6 problems from the book: Ch 7: 1, 3, 4, 5, 7, 12 | Handouts:   * Lab-ConservationOfMomentum (CE) * Lab-VectorMomentum * FA07.1 * FA07.2 * FA07.3 * Worksheet-ConservationOfMomentumQuestions |