**IB Physics**

Linear Momentum

Chapter 7 Syllabus

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| A/B | In Class: | Due on this class | | If You miss this class |
| 1 Feb6/2 | -Momentum  -Impulse and Momentum  -Rocket Science |  | | **Read:** 7.1,3  **Watch:** Videos A-D |
| 2  Feb  13/7 | -More Rocket Science  -Conservation of Momentum | **Check:**  Practice 7.1 #1, 2, 4, 5, 7, 8 | | **Read:** 7.2  **Watch:** Videos D, E |
| Final | **Final – see chapter 6 website for details** |  | |  |
| 3  Feb  15/14 | -More COM  -Energy vs. Momentum  -Momentum Demos part I | **Check:**  Practice 7.1 #18, 19, 22, 23  **Turn in:** 7.1 #1, 2, 4, 5, 7, 8, 18, 19, 22, 23 | | **Watch:** Videos E, F |
| 4  Feb  17/16 | -Momentum Demos part II  -Explanation of Labs and video flippage  -Clocking the Physics Cannon  -Hand out FA 7.1, 7.2, 7.3 | **Check:**  Practice 7.2 #1, 2, 5, 6, 7  **Turn in: Cannon Lab** | | **Read:** 7.4-6  Get the Formative assessments 7.1-7.3 |
| 5  Feb  22/21 | -Work on Labs | **Check:**  Practice 7.2 #10, 11, 12, 13, 14  **Turn in:** 7.2 #1, 2, 5, 6, 7, 10, 11, 12, 13, 14  **Video Flip:** Conservation of Momentum lab  **Video Flip:** Vector Momentum lab | | **Read:** 7.7  Come in after or before school to make up the labs |
| 6  Feb  24/23 | -Hand out Angular worksheet  -Explain Video Flip  -Work on Labs | **Check:**  Practice 7.3 #1, 2, 7, 8,11, 12 | | Come in after or before school to make up the labs |
| Feb  28/27 |  Oaks Testing | Optional EC problems from the book:  Ch 7: 1, 3, 4(-0.901 m/s), 5, 7, 12(0.69 m/s) | |  |
| 7  Mar  2/1 | **Summative Assessments on:**  **7.1 - Impulse and Momentum**  **7.2 - Conservation of Momentum**  **7.3 – Momentum and Energy**  -Finish labs | **Turn In:** 7.3 #1, 2, 7, 8, 1, 12  **Turn In:** FA 7.1, 7.2, 7.3  **Turn in:** Vector Momentum Lab  **Turn in:** Conservation of Momentum lab (CE) | | **-Come in and make up the assessments** |
| Mar  6/3 | Rotational Mechanics!!! | **Video Flip:** 8 A, B, C for 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 | |  |
| 3 Labs:   * Cannon Lab (mini lab done in-class) /10 pts * Conservation of momentum lab (with the air track – collision of gliders) /40 pts * Vector Momentum Lab – 2-D vector momentum collision (simulation from the computer) /30 pts   3 Formative/Summative Assessments   * 7.1 – Impulse and momentum (Ft = mv) * 7.2 – Conservation of momentum * 7.3 – Energy and Momentum   3 sets of Homework Problems:  Practice 7.1: #1, 2, 4, 5, 7, 8, 18, 19, 22, 23 /20 pts  Practice 7.2: #1, 2, 5, 6, 7, 10, 11, 12, 13, 14 /20 pts  Practice 7.3: #1, 2, 7, 8, 1, 12 /12 pts | | | Handouts: | | |