**IB Physics**

Linear Momentum

Chapter 7 Syllabus

|  |  |  |  |
| --- | --- | --- | --- |
| A/B | In Class: | | Due on this class |
| 1  Jan  7/8 | **DI-**What do rockets push on?  **GW**-Impulse and Rocket Science | | **VF 7A, 7B, 7C, 7D** |
| 2  Jan  9/10 | **SA7.1 - Impulse and Momentum (first 30 min)**  **VF**-7E - Conservation of momentum  **DI**-Conservation of momentum/VF for COM lab | | Turin in: FA7.1 |
| 3  Jan  13/14 | **DI**-Demos - Car design  **GW**-Vector Momentum Lab  **GW**-Conservation of Momentum Lab  GW-Conservation of Momentum problems (7.2) | | **VF 7E**  **VF First video for COM lab**  **VF First two videos for Vector Momentum** |
| 4  Jan  15/16 | **DI**-Demos - Tunnel of Transmogrification  **GW**-Vector Momentum Lab  **GW**-Conservation of Momentum Lab  **GW**-Conservation of Momentum problems (7.2)  **GW**-Energy and Momentum problems (7.3) | | **VF 7F** |
| 5  Jan  17/21 | **DI**-Demos - Cannon/Match rockets/Angular Sheet  **DI**-Demos - Angular Quantities  **GW**-Vector Momentum Lab  **GW**-Conservation of Momentum Lab  **GW**-Conservation of Momentum problems (7.2)  **GW**-Energy and Momentum problems (7.3) | | **VF 8A Angular Quantities**  **VF 8B Angular Conversions**  **VF 8C Tangential Relationships** |
| **Finals** | **Group Final for IB Questions** | | |
| 6  Jan  28/29 | **GW**-7.2, 7.3, 8.1  **DI**-Torque and Moment of Inertia demos | Turn in: Angular Quantities 8.0 (At beginning of period!)  **VF 8ABC, 8D, 8E** | |
| 1  Jan 30/31 | **SA7.2 Conservation of Momentum**  **SA7.3 Energy and Momentum**  **SA8.1** **Angular Kinematics** | Turn in: FA7.2, FA7.3, FA8.1  Turn in: Vector Momentum and COM labs | |
| @%#$  Feb  3/4 | Valuable Standardized Testing (VST) | | |
| 2  Feb  5/6 | (some people finish up VST)  GW-8.2 Angular Dynamics  GW-FA8.2 | **VF 8F-Torque, 8G-Moment of Inertia** | |
| 3  Feb  7/10 | **SA8.2-Angular Dynamics (first 30)**  VF-8I Rolling Dynamics  DI-Rolling Dynamics Demo/Example | Turn in: FA8.2 | |
| 2  Feb  11/12 | More Exciting Angular Stuff |  | |
| 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 * 7.2 – Conservation of momentum * 7.3 – Energy and Momentum | |