**IB Physics**

Linear Momentum

Chapter 7 Syllabus

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| A/B | In Class: | Due on this class |
| 1Jan7/8 | **DI-**What do rockets push on?**GW**-Impulse and Rocket Science | **VF 7A, 7B, 7C, 7D** |
| 2Jan9/10 | **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 |
| 3Jan13/14 | **DI**-Demos - Car design**GW**-Vector Momentum Lab**GW**-Conservation of Momentum LabGW-Conservation of Momentum problems (7.2) | **VF 7E****VF First video for COM lab****VF First two videos for Vector Momentum** |
| 4Jan 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** |
| 5Jan 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** |
| 6Jan28/29 | **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** |
| 1Jan 30/31 | **SA7.2 Conservation of Momentum****SA7.3 Energy and Momentum** **SA8.1** **Angular Kinematics** | Turn in: FA7.2, FA7.3, FA8.1Turn in: Vector Momentum and COM labs |
| @%#$Feb3/4 | Valuable Standardized Testing (VST) |
| 2Feb5/6 | (some people finish up VST)GW-8.2 Angular DynamicsGW-FA8.2 | **VF 8F-Torque, 8G-Moment of Inertia** |
| 3Feb7/10 | **SA8.2-Angular Dynamics (first 30)**VF-8I Rolling DynamicsDI-Rolling Dynamics Demo/Example | Turn in: FA8.2 |
| 2Feb11/12 | 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
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