IB Physics

Chapter 8 Syllabus

Angular Mechanics

|  |  |  |
| --- | --- | --- |
| Block | Class  | Due  |
| 1Feb 12/13 | -Radians, angles, circles-Tangential relationships-Centripetal acceleration revisited-Relationship between linear and angular kinematics | **Read:** 8.1-3 |
| 2Feb 17/18 | -Angular Force: Torque-Angular Mass: Moment of Inertia | **Practice:** Ch 8: 4, 5, 6, 7, 8, 11, 12, 15, 16, 17, 18, 19, 20, 21**Read:** 8.4-6 |
| 3Feb 19/20 | -Solving rolling problems-Angular Work and Power-Rotational KE-Solving problems with rotational KE | **Practice:** AM: 1-6**Practice:** Ch 8: 22, 23, 25, 26, 27, 28, 29, 30, 33, 34, 35, 36, 37, 40, **Read:** 8.7 |
| 4Feb 23/24 | -Work in groups on Problems | **Practice:** Ch 8: 43, 44, 45, 47, 48, **Practice:** AM:7-9 |
| 5 Feb 25/26 | -Angular momentum-Gyroscopes-Conservation of angular momentum | **Practice:** Ch 8: 51, 52, 53, 54, 55, 56, 57, 61, 62, (67 = TAG challenge!!)**Read:** 8.8 |
| 6 Feb 27/Mar2 | -Net Angular displacement-Coriolis Effect-Demos-Meet the Governor-Vector Cross Product-Gyroscopic precession | **Practice:** Ch 8: 70, 71**Practice:** AM:10-13**Read:** 8.9, Appendix C (p. A-16) |
| Mar 3/4 | $%#&^%$ Oaks testing | **** |
| 7 Mar 5/6 | -Gyroscope investigation intro-Work on Gyroscope investigation | **Practice:**  Ch 8: 77, 78, 86 |
| 8 Mar 9/10 | Summative Assessments:**SA 8.1 – Rotational Kinematics****SA 8.2 – Rotational Dynamics****SA 8.3 – Rotational Energy and Momentum** | **Turn In:** Gyroscope Investigation |
| 9 Mar 11/16 | Statics! |  |

|  |  |
| --- | --- |
| 1 Lab:* Gyroscope Investigation

3 Formative/Summative Assessments* 8.1 – Rotational Kinematics
* 8.2 – Rotational Dynamics
* 8.3 – Rotational Energy and Momentum
 | Handouts:* Lab-GyroscopeInvestigation
* FA08.1
* FA08.2
* FA08.3
* Worksheet-AngularMechanics
 |