IB Physics

Forces

Chapter 4 Syllabus

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| Block | | In Class: | Due on this class: | | If you miss this class: |
| 1  Nov  3/6 | | -Welcome to Physics! – Aristotle and Galileo  -Newton's laws  -Net Force Part 1 - Horizontal  -The difference between mass and weight  -Video Flip for next time (Videos E) (no noteguide) |  | | **Read:** 4.1-6  **Watch:** Videos A, **B**, C, **D** |
| 2  Nov  7/8 | | -Work on 4.2 #1, 2, 3de  -Calculating Force of friction  -Video Flip for next time (Videos G) (noteguide) | **Video Flip:** Videos E part 1, 2, 3 | | **Read:** 4.7  **Watch:** Videos E (all), F |
| 3  Nov  13/14 | | -Work on 4.3 #1, 2, 3e  -Work on some friction problems in class  -Inclined Planes Demo  -Video Flip for next time (Videos I) (noteguide) | **Video Flip:** Videos G parts a-f  **Check/Turn in:** 4.2 #1, 2, 3de | | **Read:** 4.8  **Watch:** Videos G (all), H |
| 4  Nov  15/16 | | -Calculating the four forces on inclined planes  -Work on Inclined Planes Problems 4.4 #1-3 | **Video Flip:** Videos I parts A-E  **Check/Turn in:** 4.3 #1, 2, 3e | | **Watch:** Videos I |
| 5  Nov  17/20 | | -Solving Pulley problems  -Intro of *Force Lab (no handout)*  -How to deal with no mass on Inclined Planes  -Hand out FA 4.2, 4.3, 4.4, 4.5, Force Lab - Design | **Check/Turn in:** 4.4 #1, 2, 3 | | **Watch:** Videos J |
| 6  Nov  21/22 | | -Variables for *Force Lab*  -Work on *Force Lab* (groups of 2) | **Video Flip:** Force lab (first video)  **Check:** Ch 4: 7, 10(1.3E4 N), 37, 41 | | **Watch:** Force Lab (first video)  **Watch:** videos for book problems  You might need to come in and make up the lab |
| 7  Nov  27/28 | | -Work on *Force Lab* | **Check:** Ch 4: 47, 76(11.3, 0.88 m/s/s), 24b(0.520 m/s/s @51.0o) | | **Watch:** videos for book problems  You might need to come in and make up the lab |
| 8  Nov  29/30 | | **-Summative Assessments:**  **-SA 4.2 - Vertical Dynamics**  **-SA 4.3 - Friction**  **-SA 4.4 - Inclined Planes** | **Turn in:** FA 4.2, 4.3, 4.4, 4.5  **Turn in:** Ch 4: 7, 10, 37, 41, 47, 76, 24b | | Come in and make up the assessments during a makeup session. |
| Dec  1/4 | | -Why it is important to consider the weight of a barrel of bricks.  **Gravity and circular motion!!!!!** | **Turn in: Force Lab (Design)** | |  |
| Assignments   * 1 Lab:   + Student designed lab on force (groups of 2) /40 pts * 4 homework sets:   + 4.2 #1, 2, 3de /24 pts   + 4.3 #1, 2, 3e /22 pts   + 4.4 #1, 2, 3 /30 pts   + Ch 4: 7, 10, 37, 41, 47, 76, 24b /35 pts * 4 Formative/ 3 Summative Assessments:   + 4.2 – Vertical Dynamics   + 4.3 – Friction   + 4.4 – Inclined Planes   + 4.5 – Pulleys (no summative) | | | Handouts: | | | \*Handouts:  Syllabus-Forces  FA 4.2/FA 4.3/FA 4.4/FA 4.5  Worksheet-NetForceAndFriction  NoteGuide-InclinedPlanesExample  Worksheet-PlanesAndEquil |