IB Physics

Forces

Chapter 4 Syllabus

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| Block | In Class: | Due on this class: | If you miss this class: |
| 1Nov 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** |
| 2Nov 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 |
| 3Nov 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 |
| 4Nov 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 |
| 5Nov 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 |
| 6Nov 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 problemsYou might need to come in and make up the lab |
| 7Nov 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 problemsYou might need to come in and make up the lab |
| 8Nov 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-ForcesFA 4.2/FA 4.3/FA 4.4/FA 4.5Worksheet-NetForceAndFrictionNoteGuide-InclinedPlanesExampleWorksheet-PlanesAndEquil |