IB Physics

Chapter 3 Syllabus: Two Dimensional Kinematics - Vectors and Projectile Motion

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| Block | Class | On this class: |
| 1  **Sept 30/ Oct 1** | -Hand out *Vector Sheet*  -"Where am I?" lab  -Finding vector components  -Adding vector component vectors  -Making angle magnitude vectors  -Adding two angle magnitude vectors  -Work on vector sheet in class 1-14 | **Video: B, C, D**  **Turn in:** *Air rocket* Lab  **Turn in:**  *Plot Matching* lab  **Turn in:** *Moving Plots* lab  **Turn in:** *Where am I* lab (in class) |
| 2 Oct 2/3 | -Multiplying vectors by scalars  -Work on vector sheet in class 15-18, 19, 20  -The principles of projectile motion  -Hand out Cliff Problem Noteguide | **Video: F**  **Practice:** Vector Sheet: 1-14  **Read:** 3.1-.4 |
| 3 Oct 6/7 | -Hand out PM and 2DM worksheet  -Cliff Quizlette  -Work on 2DM 1, 2, PM 1  -Hand out Arc Problem Noteguide | **Video Flip: Cliff Problems (G)**  **Practice:** Vector Sheet: 15-20  **Read:** 3.5 |
| 4  **Oct 8/9** | -Arc Quizlette  -Work on PM 3, 2, 4  -Projectile motion demos | **Video Flip: Arc Problems (H)**  **Read:** 3.6-.7  **Practice:** 2DM 1, 2, PM 1 |
| 5 Oct 13/14 | -Work on PM 5, 6, 2DM 10-14  -Description of Air rocket competition  -Plan for air rocket competition | **Video Flip: The Range Equation (I)**  **Practice:** Projectile Motion: 2, 3, 4  **Turn in:** Cliff and Arc Quizlettes |
| 6  **Oct 15/16** | -Rocket launch competition **(Outdoors)**  -Demo of boat crossing river in class | **Practice:** Projectile Motion: 5, 6, 2DM 10-14  **Bring:** A warm or rain coat |
| 7Oct 17/20 | -Work on FA 3.4 - Boat Crossing River  -Introduction of Vernier Trajectories lab  -Hand out FA 3.1, 3.2, 3.3 | **Video Flip: Boat Crossing River (J)**  **Read:** 3.8 |
| 8  **Oct 21/22** | -In class time to work on  Vernier Trajectories lab  FA 3.1, **3.2**, **3.3**, 3.4 | **Practice:** 2DM 7, 8, SO2DM 7, PM 7, 8 |
| 9  **Oct 27/28** | **Summative assessments on:**  **-SA 3.1 Vectors**  **-SA 3.2 Cliff Problems**  **-SA 3.3 Arc Problems**  In class time to work on Lab | **Turn in:** Vernier Trajectories lab  **Turn in: FA 3.1 Vectors**  **Turn in: FA 3.2 Cliff Problems**  **Turn in: FA 3.3 Arc Problems**  **Turn in: FA 3.4 Boat Crossing River** |

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| Assignments   * 2 Labs: (There is no write up for the rocket competition)   + Where am I (Done in class)   + Vernier Trajectories (Simulation on computer) * 4 Formative Assessments   + 3.1 – Vectors   + 3.2 – Cliff Problems   + 3.3 – Arc Trajectories   + 3.4 – Boat Crossing River * 3 Summative Assessments   + 3.1 – Vectors   + 3.2 – Cliff Problems   + 3.3 – Arc Trajectories | \*Handouts:  Syllabus-2DKinematics  FA03.1  FA03.2  FA03.3  FA03.4  Quizlette-Cliff  Quizlette-Arc  Noteguide-Arc  Noteguide-Cliff  Worksheet-VectorSheet  Worksheet-ProjectileMotion  Worksheet-2DimensionalMotion+SonOf |