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| **Unit** | **Lesson** | **Activity** |
| 1 | 1-1 | Jump Lab |
| 1-2 | Drop object from different heights, plot d vs. t2 and calculate g |
| 1-3 | Vectors Lab |
| 1-5 | Projectiles Simulation |
| 1-6 | Nerf Gun Physics |
| 2 | 2-1 | Force Jumping |
| 2-2 | Minilab: find coefficient friction by dragging a block on surface, plot a graph of Fapp vs Fg |
| 2-3 | 4 vector problem |
| 2-4 | Incline Lab |
| 2-5 | Atwood Machine Lab |
| 2-6 | Determine µ with incline and protractor |
| 3 | 3-2 | 3 Spring scales. Estimate 3rd force knowing the 1st 2. Right angles and non-right angles |
| 3-3 | Torque Lab Part 1 and 2 |
| 3-4 | Activity: Place the fulcrum and three unequal masses appropriately on the meter stick to achieve equilibrium.  Find: An equation which describes static equilibrium for the system |
| 3-5 | Activity: 1.5 meters of string tied to the end of a meter stick and a push pin attached to the other end of the string, a protractor, a set of known masses and a weight hanger. Place the end (without the string) of the meter stick against a wall so that it is perpendicular to the wall, pin the string to the wall directly above the meter stick so that the string makes an angle with the meter stick, and the end of the meter stick which is against the wall is held up perpendicular to the wall only by friction. Find u. |
| 4 | 4-2 | Work-energy Theorem Mini-Lab |
| 4-3 | Rolling Stone Mini-Lab |
| 4-4 | Machine Efficiency Mini-Lab |
| 4-5 | Ballistic Pendulum Mini-Lab |
| 4-8 | Collisions in 2D Lab |
| 4-9 | Collisions in 2-D Curling Field Trip |
| 5 | 5-3 | Centripetal Motion Lab |
| 5-4 | Loop the Loop Minilab |
| 6 | 6-1 | Mini-Lab: Two Balloons on a string charge them and hang them from ring stand. Calculate charge (assuming equal) |
| 6-2 | Simulation: Intro to Electric Fields |
| 6-7 | Electrostatics Simulation Physlet |
| 7 | 7-1 | Series and parallel circuits simulation |
| 7-5 | Terminal Voltage Lab |
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