This information is about the files provided for use with *Physics Explorations and Projects*.

|  |  |  |  |
| --- | --- | --- | --- |
|  | 1 | Constant and Changing Motion | Videos for analysis will be provided. |
|  | 2 | Balanced and Unbalanced Forces |  |
| ✅ | 3 | Gravitation on Earth | Data for Part 1: 10 Picket Fence Drops and Part 2: manual data entry for 11 objects. |
|  | 4 | Newton’s Second Law |  |
|  | 5 | Projectile Challenge | Challenge - no data |
|  | 6 | Impulse and Momentum |  |
|  | 7 | Equilibrium of Forces | Not conducive to home data analysis |
|  | 8 | Circular Motion |  |
|  | 9 | Conservation of Momentum |  |
|  | 10 | Egg Challenge | Challenge - no data |
| ✅ | 11 | Springs Making Things Move | 4 experiment files |
|  | 12 | Kinetic Energy and Mass | No data (yet) |
| ✅ | 13 | Work Kinetic Energy | 1 File. 2 masses, 6 trials |
|  | 14 | Work Done by Gravity | No data (yet) |
|  | 15 | Energy in Collisions |  |
|  | 16 | Rube Goldberg | Project - no data |
|  | 17 | Charge and Charge Models |  |
|  | 18 | Coulomb’s Law | No data (yet) |
|  | 19 | Measure Electric Current | No data (yet) |
|  | 20 | Conservation of Charge |  |
|  | 21 | Voltage in a Circuit | No data (yet) |
|  | 22 | Battery Challenge | Project - no data |
| ✅ | 23 | Magnetic Field Current | Data for two options: field strength vs. distance from wire and field strength vs. current. |
| ✅ | 24 | Current Changing Field | Data for one option: effect of number of coils of wire. |
|  | 25 | Generating Electricity | No data will be available for this investigation |
|  | 26 | Speaker | Project - no data |
| ✅ | 27 | Wave Speed on a String | Data for two options: wave speed vs string tension and wave speed vs string linear mass density |
| ✅ | 28 | Speed of Sound | Data for Microphone Method 1 |
|  | 29 | Interference and Diffraction |  |
|  | 30 | Sound and Loudness | Analysis requires curve fit not currently available in GA4 |
|  | 31 | Wave Communication Challenge | Challenge - no data |
| ✅ | 32 | Energy Storage in Capacitors | Data for one option: varying voltages applied to capacitor |
|  | 33 | Oscillations |  |
|  | 34 | Heat as Energy Transfer |  |
|  | 35 | Solar Cells |  |
|  | 36 | Rube Goldberg Revisited | Project - no data |