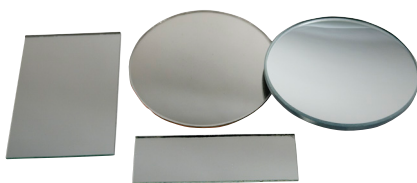


Recommended Minimum Core Inventory for NGSS

High School Physics, Class of 32 Students

| Qty. Per Classroom | Equipment / Supplies | FREY Catalog # | Catalog Unit \$ | Total |
|------------------------------------|---|----------------|-----------------|------------|
| SAFETY EQUIPMENT | | | | |
| 32 | Aprons Vinyl, 27" x 36" | 1477657 | \$5.69 | \$182.08 |
| 1 | Disposable Aprons, pk/100 | 2003375 | \$9.29 | \$9.29 |
| 1 | Eye Wash Station Double Bottle, 32 oz | 529331 | \$71.99 | \$71.99 |
| 1 | Fire Blanket | 1488340 | \$149.99 | \$149.99 |
| 1 | Fire Extinguisher | 1469473 | \$142.69 | \$142.69 |
| 1 | First Aid Kit, 25 Student | 1451983 | \$70.09 | \$70.09 |
| 32 | Goggles Direct Vent Fog Free | 577918 | \$3.89 | \$124.48 |
| 1 | Goggles Sanitizer (holds 35 pairs of goggles) | 1574050 | \$911.99 | \$911.99 |
| EQUIPMENT / SUPPLIES | | | | |
| Mechanics / Force Equipment | | | | |
| 8 | *Accelerometer | 1477526 | \$29.09 | \$232.72 |
| 1 | Air Track Complete | 1592922 | \$1,001.79 | \$1,001.79 |
| 1 | Air Table | 1577077 | \$737.99 | \$737.99 |
| 1 | Archimedes Principle Kit | 20-1583 | \$95.99 | \$95.99 |
| 8 | Balance (0.1g accuracy) | 2012761 | \$223.19 | \$1,785.52 |
| 1 | Bicycle Wheel Gyroscope | 1539815 | \$75.09 | \$75.09 |
| 8 | Boyle's Law Apparatus | 589953 | \$19.99 | \$159.92 |
| 8 | Cart, halls (4 aluminum low friction wheels, total length 6") | 1512359 | \$16.79 | \$134.32 |
| 40 | C Clamps, 3" | 574122 | \$5.79 | \$231.60 |
| 8 | Collision in Two Dimension Kit (track, balls: 5-steel) | 1017039 | \$19.99 | \$159.92 |
| 4 | Drawing Compasses, pk/12 | 081885 | \$13.99 | \$55.96 |
| 1 | *Electronic Timer / Photogates | N792-1100 | \$364.95 | \$364.95 |
| 1 | Force Table | 30-1510 | \$218.69 | \$218.69 |
| 8 | Inclined Plane Set | 30-1500 | \$55.99 | \$447.92 |
| 8 | Mass Set (1g to 1000g), set 13 | 1324364 | \$210.09 | \$1,680.72 |
| 16 | Meter Sticks | 081901 | \$3.19 | \$51.04 |
| 8 | Momentum / Collision Apparatus | 589908 | \$17.99 | \$143.92 |
| 8 | Motion Sensor for NeuLog | 1526596 | \$83.49 | \$667.92 |
| 1 | Newton's Cradle "Collision Balls" | 1493984 | \$22.09 | \$22.09 |
| 8 | Pendulum Set, drilled ball set 12 | 1445065 | \$58.79 | \$470.32 |
| 16 | Plumb Bobs | 583911 | \$7.99 | \$127.84 |
| 4 | Protractors, pk/12 | 084410 | \$7.99 | \$31.96 |
| 16 | Pulley Apparatus | 532028 | \$8.69 | \$139.04 |
| 20 | Ring Stand Clamps, 3" | 030-8769 | \$9.49 | \$189.80 |

| Qty. Per Classroom | Equipment / Supplies | FREY Catalog # | Catalog Unit \$ | Total |
|---|--|----------------|-----------------|------------|
| 20 | Ring Stands, 5" x 8" | 574173 | \$15.29 | \$305.80 |
| 40 | Rulers, 12 (with metric markings) | 089837 | \$1.59 | \$63.60 |
| 8 | Spring Scales (1 kg) | 193-5894 | \$12.79 | \$102.32 |
| 8 | Spring Scales (500 g) | 193-5883 | \$12.79 | \$102.32 |
| 8 | *Spring Scales (250 g) | 193-5872 | \$12.79 | \$102.32 |
| 8 | *Stopwatch, pk/2 | 576952 | \$6.69 | \$53.52 |
| 8 | Stroboscope | N594864 | \$259.99 | \$2,079.92 |
| 8 | Weight set, hooked 10 weights 10g–1Kg in plastic holding block | 1488752 | \$105.79 | \$846.32 |
| Mechanics / Thermodynamics Equipment | | | | |
| 1 | Ball and Ring Apparatus | 589530 | \$14.79 | \$14.79 |
| 8 | Calorimeter | 599082 | \$17.09 | \$136.72 |
| 8 | Conductometer | 564649 | \$21.99 | \$175.92 |
| 1 | Convection Box | 584295 | \$29.99 | \$29.99 |
| 8 | Convection of Liquids Tube | 598890 | \$17.09 | \$136.72 |
| 8 | Heat Transfer Kit | 1387286 | \$38.89 | \$311.12 |
| 8 | Metals Set for Density and Specific Heat Labs | 599154 | \$23.09 | \$184.72 |
| WAVES/OPTICS EQUIPMENT | | | | |
| 8 | Spectroscopes, set 2 | 590100 | \$14.39 | \$115.12 |
| 8 | Lens, semicircular | 532033 | \$9.19 | \$73.52 |
| 8 | Laser, small pointer | 99-6400 | \$6.79 | \$54.32 |
| 8 | Lens Set (concave, convex, biconcave, biconvex, prisms) | 532036 | \$62.69 | \$501.52 |
| 8 | Mirrors, Concave | 574260 | \$4.69 | \$37.52 |
| 8 | Mirrors, Convex | 573171 | \$4.89 | \$39.12 |
| 16 | Mirrors, Flat | 562388 | \$1.19 | \$19.04 |
| 1 | Radiometer, Crookes | 181-2055 | \$16.59 | \$16.59 |
| 1 | Resonance Tube | 561259 | \$13.99 | \$13.99 |
| 1 | Ripple Tank and Accessories, (motor-driven rippler bar, vertical light support, shaped wooden barrier blocks, extra glass plate, parabolic reflector, white plastic viewing screen, high power light source, 2 adjustable hand strobe discs) | 1396496 | \$973.19 | \$973.19 |
| 1 | Rotating Platform | 590262 | \$49.99 | \$49.99 |
| Spectrum Tubes, Assorted Gases Set | | | | |
| 1 | Air Spectrum Tube | 1445001 | \$46.99 | \$46.99 |
| 1 | Carbon Dioxide Spectrum Tube | 1445000 | \$46.99 | \$46.99 |
| 1 | Helium Spectrum Tube | 1444998 | \$46.99 | \$46.99 |
| 1 | Neon Spectrum Tube | 1444999 | \$46.99 | \$46.99 |
| 1 | Hydrogen Spectrum Tube | 1444997 | \$46.99 | \$46.99 |
| 1 | Spectrum Tube Power Supply | 1444995 | \$284.09 | \$284.09 |
| 16 | Super Slinky | 580264 | \$43.99 | \$703.84 |



| Qty. Per Classroom | Equipment / Supplies | FREY Catalog # | Catalog Unit \$ | Total |
|--|---|----------------|-----------------|--------------------|
| 16 | *Thermometers (-20° to 110°C) | 1017390 | \$3.49 | \$55.84 |
| 8 | Tuning Fork Set (8 piece set w/variety of frequencies) | 531830 | \$35.99 | \$287.92 |
| 1 | Tuning Fork Set, resonant | 560722 | \$50.89 | \$50.89 |
| ELECTRICITY AND MAGNETISM EQUIPMENT | | | | |
| 8 | Ammeter, dual range 0-1amp and 0-5amp for student use | 584733 | \$19.79 | \$158.32 |
| 8 | Bar Magnets Pair | 568409 | \$10.99 | \$87.92 |
| 16 | Circuit Board | 573252 | \$15.99 | \$255.84 |
| 2 | Basic Electronic Parts | 574054 | \$111.99 | \$223.98 |
| 2 | Electricity Kit | 574169 | \$129.99 | \$259.98 |
| 1 | Compass, magnetic, pk/12 | 030-5887 | \$23.99 | \$23.99 |
| 8 | Coulomb's Law Apparatus | 589581 | \$57.09 | \$456.72 |
| 8 | Electroscope | 589779 | \$39.09 | \$312.72 |
| 8 | Electrostatic Charge Lab | 1559719 | \$42.59 | \$340.72 |
| 16 | Electrodes Copper | 1296262 | \$3.99 | \$63.84 |
| 16 | Electrodes Zinc | 1296305 | \$3.99 | \$63.84 |
| 1 | Hand-Held Electric Generator | 1412715 | \$15.19 | \$15.19 |
| 8 | Compass, magnetic pk 4 | 562352 | \$3.09 | \$24.72 |
| 8 | *Multimeters, digital | N531976 | \$54.99 | \$439.92 |
| 1 | Van de Graaff generator | 527279 | \$195.69 | \$195.69 |
| 1 | Wimshurst generator | 230-7182 | \$211.69 | \$211.69 |
| 8 | Power Supplies, variable output | 531970 | \$239.19 | \$1,913.52 |
| 2 | Resistors 5W, 250 OHM pk/10 | 574551 | \$6.29 | \$12.58 |
| 1 | Thiourea Paper Strips, pk/12 vials, 100 strips | 589122 | \$19.99 | \$19.99 |
| MISCELLANEOUS EQUIPMENT | | | | |
| 1 | Barometer, aneroid ,inches, centimeters, & millibars | 1387083 | \$43.29 | \$43.29 |
| 16 | Clamp, right angle rod clamps, | 564856 | \$4.29 | \$68.64 |
| 8 | Clamp, adjustable as to angle, fits rods up to 5/8", aluminum | 1503170 | \$14.69 | \$117.52 |
| 1 | Vacuum Hose, ID 3/8" (pkg/500 ft) | 1477597 | \$50.99 | \$50.99 |
| 1 | Vacuum Pump Plate, acrylic fits 9" diameter, hose ID 3/8" | 596647 | \$158.09 | \$158.09 |
| 1 | Vacuum Pump, 85 liters/min, fits hose ID 3/8" | 527310 | \$1,043.69 | \$1,043.69 |
| | Total | | | \$25,590.58 |
| Supplied by teacher | | | | |
| 1 | Digital Projector | | | |
| 1 | VGA Adapters for Various Digital Devices | | | |
| 1 | Video Camera | | | |



| Qty. Per Classroom | Equipment / Supplies | FREY Catalog # | Catalog Unit \$ | Total |
|--|----------------------------|----------------|-----------------|----------|
| * ALTERNATE | | | | |
| Alternate computer-based probeware/sensors may be used for Accelerometer | | | | |
| 1 | NeuLog WiFi Module | N1590619 | \$149.99 | \$149.99 |
| 8 | NeuLog Acceleration Sensor | N1526610 | \$86.69 | \$693.52 |
| Alternate computer-based probeware/sensors may be used for Timer/Photogates | | | | |
| 1 | NeuLog WiFi Module | N1590619 | \$149.99 | \$149.99 |
| 2 | NeuLog Photogate Sensor | N1526592 | \$47.49 | \$94.98 |
| Alternate computer-based probeware/sensors may be used for Spring Scales | | | | |
| 1 | NeuLog WiFi Module | N1590619 | \$149.99 | \$149.99 |
| 8 | NeuLog Force Sensor | N1526594 | \$107.99 | \$863.92 |
| Alternate computer-based probeware/sensors may be used for Stopwatch | | | | |
| 1 | NeuLog WiFi Module | N1590619 | \$149.99 | \$149.99 |
| 16 | NeuLog Photogate Sensor | N1526592 | \$47.49 | \$759.84 |
| Alternate computer-based probeware/sensors may be used for Thermometers | | | | |
| 1 | NeuLog WiFi Module | N1590619 | \$149.99 | \$149.99 |
| 8 | NeuLog Temperature Sensor | N1526586 | \$32.79 | \$262.32 |
| Alternate computer-based probeware/sensors may be used for Multimeters | | | | |
| 1 | NeuLog WiFi Module | N1590619 | \$149.99 | \$149.99 |
| 8 | NeuLog Voltage Sensor | N1526584 | \$40.89 | \$327.12 |
| 8 | NeuLog Current Sensor | N1526585 | \$40.89 | \$327.12 |