# Carolina's Certified Version of OpenSciEd High School Physics



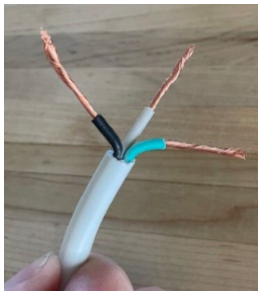

# Unit Enhancement Sheets



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# Unit P.1 | Energy Flow from Earth's Systems

Carolina provides pre-stripped power strips, with plugs removed, along with all materials needed to disassemble the power strip safely and effectively. A digital multimeter is included to save teachers hours of prep time.

| LESSON | CAROLINA MODIFICATION |
|---|---|
| **2** | Carolina kits include D-battery holders to enhance safety and save the teacher time. This addition eliminates the need for tape and cutting alligator clips.<br><br>Carolina added power strips that have the plugs removed and cords stripped to save the teacher time and enhance safety.<br><br>All kits come with a TA20 and flathead screwdriver for removing the cover of power strips, as well as electrical tape to secure dissected power strips. Carolina also includes a video with step-by-step instructions on how to prepare the power strips.  |
| **4** | Carolina provides Energy Source card set on durable card stock. This saves the teacher prep time of printing and cutting 80 cards. |
| **5** | Kit includes a digital multimeter to save the teacher hours of prep time, and prevents teachers from having to build their own ammeters. |
| **6** | Carolina added an optional, Real-Life Wire Investigations Demo video, to support the current investigation. |

## EQUIPMENT & MATERIALS

- Kits built to support the OER versions
- Provide enough materials for 6 lab groups
- Improved quality of photos and graphics on card sets and student handouts
- Teacher Interactive Board – Digital
- Editable 3D Test Banks

*See Carolina Certified Materials List for more detailed information.*

### CAROLINA CERTIFIED VERSIONS

OpenSciEd CERTIFIED CAROLINA® VERSION

*All modifications and enhancements to materials and/or lessons are approved by the OpenSciEd Curriculum Team to preserve the integrity of the storyline and instructional model for each unit.*

- Redesigned print Teacher and Student Editions
- Digital versions of teacher and student resources
- Equipment kits with high-quality materials configured for 8 lab groups



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# Unit P.2 | Energy, Forces, & Earth's Crust

Carolina provides high quality maps and durable card sets to save teachers the expense and time of color printing/cutting individual card sets.

| LESSON | CAROLINA MODIFICATION |
|---|---|
| **1** | Kits include 5 durable 11" X 17" world maps for teachers that are teaching this unit to multiple class sections. Mini sticky notes are included to use on the maps. |
| **2** | Carolina provides Free-Body Manipulatives card set on durable card stock. This saves the teacher prep time of color printing and cutting 20 individual cards.<br><br>Carolina provides a PDF of the pattern for required foam pieces so that the teacher can print the pattern and use it as a template for cutting foam pieces. |
| **8** | Carolina provides Rock Site Map card set on durable card stock. This saves the teacher prep time of color printing 20 cards. |
| **9** | Carolina provides Ages of Crustal Rocks Maps card set on durable card stock. This saves the teacher prep time of color printing 20 cards. |

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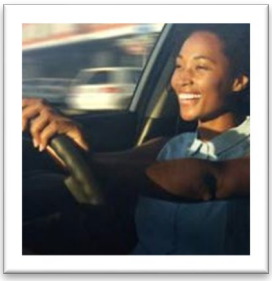
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# Unit P.3 | Collisions & Momentum

Carolina provides a durable and easy to assemble Variable Cart with Brake kit as well as a Vernier smart cart and track bundle to save the teacher hours of prep time and enhance data collection capabilities.

| LESSON | CAROLINA MODIFICATION |
|---|---|
| **4** | Carolina kits include a durable Variable Cart with Brake Kit for each group (6 total). These carts require minimal assembly and reduce the amount of teacher prep time by hours.  Carolina includes 15” wide rigid foam boards to be used for the track assembly. This reduces the teacher prep time significantly and prevents teachers from having to tape together laminated floorboards. |
| **6 and 10** | Carolina provides a Vernier Smart Cart and Track bundle to make set up easier for teachers. The kit comes with a magnetic bumper that screws into the cart easily without any further alterations. This enhancement ensures reliable data collection and saves the teacher prep time. |

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# Unit P.4 | Meteors, Orbits, & Gravity

Carolina provides durable card sets, sheet protectors for annotation, multiple digital pocket scales for quick and easy setup, and practical storage solutions like plastic bowls with lids – saving teachers significant prep time and improving classroom efficiency.

| LESSON | CAROLINA MODIFICATION |
|---|---|
| **1** | Carolina provides Phenomena card set on durable card stock. This saves the teacher prep time of color printing and cutting up to 280 individual cards.<br><br>Carolina kits include sheet protectors so that materials can be annotated on. |
| **2** | Carolina kits include 7 digital pocket scales for faster/easier setup for teachers. |
| **10** | Kits include plastic bowls with lids for the crater lab so flour can be stored for later use. |
| **12** | Carolina provides Earth Crater card set on durable card stock. This saves the teacher prep time of color printing and cutting up to 140 individual cards. |

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# Unit P.5 | Electromagnetic Radiation

Carolina provides large slinkies and matching polystyrene balls to eliminate extra prep, durable suction-based mini vices for secure setups, and easy-to-use templates for consistent light bulb array assembly – saving teachers time and improving classroom efficiency.

| LESSON | CAROLINA MODIFICATION |
|---|---|
| **2** | To enhance safety and ensure all students have access to demonstrations, Carolina created a high-quality light bulb in a microwave demonstration video. |
| **3** | Carolina provides one large slinky per group to prevent students/teachers from having to glue together three small slinkies. Carolina also includes polystyrene balls that match the larger slinky.<br><br>Kits include durable suction-based mini vices to hold rods to prevent teachers and students from having to use cardboard boxes. |
| **7** | Carolina provides Molecule Cutouts printed on durable card stock as individual molecules. This saves the teacher the prep time of printing and cutting out 40 card sets. |
| **8** | Carolina simplified the setup for the light bulb arrays. Our kits include templates that teachers can print out and lay over the cardboard to easily and consistently punch holes in the right pattern.<br><br>Carolina also provides a video of the demonstration to aid with the setup and provides students with opportunities to observe the demonstration multiple times to further understanding. |
| **10** | Carolina provides a video of the Slinky Spring station to aid with the setup and provides students with opportunities to observe the demonstration multiple times to further understanding. |

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# Unit P.6 | Stars & The Big Bang

Carolina provides durable, ready-to-use star maps printed on PVC for long-term use, along with pre-printed Star Spectra and Galactic Spectra card sets—saving teachers significant prep time and ensuring high-quality materials for repeated classroom use.

| LESSON | CAROLINA MODIFICATION |
|---|---|
| **1** | Carolina provides 6 copies of the Star Map printed on durable 11 x 17" PVC material. The material will ensure durability with year over year use. This saves the teacher the prep time of color printing and laminating poster size documents. |
| **2** | Kit includes Star Spectra card sets (1 per pair of students) on durable card stock. This saves the teacher the prep time of printing and cutting up to 60 cards. |
| **6** | Carolina kits include Galactic Spectra card sets on durable card stock. This saves the teacher the prep time of printing and cutting up to 20 cards. |

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- Digital versions of teacher and student resources
- Equipment kits with high-quality materials configured for 8 lab groups