

CURRICULUM CONNECTIONS

This section is for educators who want more specific information regarding the grade 5 curriculum connections for each activity in the *Power Productions* crate.

Grade 5: Table of Knowledge Outcomes

Activity	Unit(s)	STS-Knowledge Outcomes
Job 1 - Fix the Light	Electricity and Magnetism Mechanisms Using Electricity	5-5-4: Demonstrate that a continuous loop of conducting material is needed for an uninterrupted flow of current in a circuit. 5-5-10: Draw and interpret, with guidance, circuit diagrams that include symbols for switches, power sources, resistors, lights, and motors. 5-6-2: Design and construct circuits that operate lights and other electrical devices.
Job 2 - Light Up the Stage	Electricity and Magnetism Mechanisms Using Electricity	5-5-10: Draw and interpret, with guidance, circuit diagrams that include symbols for switches, power sources, resistors, lights, and motors. 5-6-2: Design and construct circuits that operate lights and other electrical devices. 5-6-7: Demonstrate different ways of lighting two lights from a single power source, and compare the results. Students should recognize that wiring two bulbs in series makes both bulbs glow less brightly than if the bulbs are wired in parallel. Students may demonstrate this knowledge operationally and do not need to use the terms series and parallel.
Job 3 - Repair the sciPod	Electricity and Magnetism Mechanisms Using Electricity	5-5-6: Recognize and demonstrate that some materials, including resistors, are partial conductors of electricity. 5-5-7: Predict the effect of placing an electrical resistance in a simple circuit. 5-5-10: Draw and interpret, with guidance, circuit diagrams that include symbols for switches, power sources, resistors, lights, and motors. 5-6-2: Design and construct circuits that operate lights and other electrical devices.
Job 4 - Move the Backdrops	Electricity and Magnetism	5-5-2: Describe and demonstrate example activities that show that electricity and magnetism are related: - demonstrate that electricity can be used to create magnetism 5-5-3: Demonstrate and interpret evidence of magnetic fields around magnets and around current-carrying wires, by use of iron filings or by use of one or more compasses.

Job 5 Reduce the Energy Bill	Electricity and Magnetism	5-5-8: Recognize that the amount of electricity we use in our homes is measured in kilowatt-hours. 5-5-9: Interpret and explain: - the reading on a household electrical meter - efficiency labels on electrical appliances
Job 6 Repair the Circuit	Electricity and Magnetism	5-5-1: Recognize and appreciate the potential dangers involved in using sources of electrical currents: - understand that household electrical currents are potentially dangerous and not a suitable source for experimentation - understand that small batteries are a relatively safe source of electricity, for experimentation and study, but that care should be taken to avoid short circuits 5-5-5: Distinguish electrical conductors—materials that allow electricity to flow through them—from insulators—materials that do not allow electricity to flow through them.