Focus Questions
Grade Four

Circuits and Pathways (Insights)

Lesson 1: *What Do We Already Know?*
What do you think you know about electricity?

Lesson 2: *Circuits and Motors*
What can you do to make a motor spin?

Lesson 3: *Lighting the Bulb*
How many ways can you find to light a bulb?

Lesson 4: *What's Inside the Bulb*
Where does the electricity flow inside a bulb?

Lesson 5: *Conductors and Nonconductors*
What materials are conductors and which ones are non-conductors?

Lessons 6 & 7: *Predictions #1 and #2*
Students make predictions in Lessons 6 & 7. Embedded assessment in Lesson 7.

Lesson 8: *Series Circuits*
What happens when you change a series circuit by adding bulbs?

Lesson 9: *Brightness Meters*
How can we measure the brightness of bulbs?

Lesson 10: *Parallel Circuits*
How can you wire a circuit so that removing one bulb does not make the remaining bulb(s) in the circuit go out?

Lesson 11: *Switches*
How does a switch work? How can you make a switch?

Lesson 12: *Electric Resistance*
How does changing the wire affect the brightness of a bulb in a circuit? What systematic test can you use?

Circuits and Pathways Questions (Continued)

Lesson 13: *Fuses*
Focus question: What does a fuse do in a circuit?

Lesson 14: Hidden Circuits
Focus question: What systematic test can you use to determine which brass fasteners are connected by wire?

Lesson 15: Mystery Boxes
Focus questions: What systematic test can you use to determine which brass fasteners are connected? How can you determine what connects those fasteners?