

Electric Circuits, Electrical Energy and Circuit Design Grades 5-9

Teachers will learn about the flow of electricity in electrical circuits, how to construct them, and how to represent the parts of a circuit in circuit diagrams. Teachers will explore many different kinds of circuits while learning about switches, constructing a flashlight, and investigating the properties of diodes. Teachers will design electrical circuits for an alarm or warning device and a feedback control system. This academy will introduce teachers to the Science, Technology and Children curriculum and materials "Electric Circuits" and to the Science Technology Concepts for Middle School curriculum and materials "Electrical Energy and Circuit Design". Additionally, circuit design projects related to Sensors will be introduced. Science Standards related to Energy, Science and Technology, and Science Inquiry in grades 5-9 will be addressed.

Suggested Audience: Teachers of grades 5-9, special education teachers, and those from high-need districts are encouraged to attend.

Institute Dates: July 14-18

Monday 8:30 am - 4:30 pm

Tuesday-Friday 8:30 am - 3:30 pm

Location: 231 Fawcett Hall, Wright State University

Optional Graduate Credit: 2 quarter credit hours from Wright State University

Academic Year Follow-up: 13 hr follow-up

(additional 2 quarter hours)

4:30 – 7:30 in August (TBA)

8:30 – 4:30 WOE Day (October 17, 2008)*

4:30 – 7:30 in May (TBA)

*If your district does not observe WOE Day, the EXCEL Center will reimburse your district for the cost of a substitute up to \$100.