

Washington Township School District

STEM/Makerspace Curriculum

Grade:	4	Mystery Science Unit/Project Title:	Energizing Everything
NJ Learning Standard(s):	4-PS-3-2, 4-PS3-4 PS3.B, 4-ETS1.A		
Objective:	SWBAT: <ul style="list-style-type: none"> Create a paper circuit that lights up an LED and is powered by a battery Identify parts of a simple circuit Explain the path that electric current takes power an appliance 		
STEM/ Unit Activities	Paper Circuits		
Suggested Assessments:	<ul style="list-style-type: none"> Exit Ticket / Project Success 		
Supplies Needed:	<ul style="list-style-type: none"> LED Origami (p. 45): origami paper, assorted 5-mm LEDs, 2032 coin cell batteries, electrical or duct tape, clear tape Simple Circuit Card (p. 50): simple circuit template (template file p. 1-2), copper tape or copper tape adhesive conductive, Chibitronics LED stickers, 2032 coin cell battery Flip the Switch Card (p. 54): flip the switch circuit template (template file p. 3-4), copper tape or copper tape adhesive conductive, Chibitronics LED stickers, 2032 coin cell battery Parallel Circuit Card (p. 57): parallel circuit template (template file p. 5-6), copper tape or copper tape adhesive conductive, Chibitronics LED stickers, 2032 coin cell battery Disco Branched Circuit Card (p.60): disco branched circuit template (template file p. 7-8), copper tape or copper tape adhesive conductive, Chibitronics LED stickers, 2032 coin cell battery battery Pull-Tab Switch (p. 64): cardstock paper, assorted 5-mm LEDs, copper tape or copper tape adhesive conductive, Chibitronics LED stickers, 2032 coin cell battery Tiered Pull-Tab Trick (p.69): cardstock paper, assorted 5-mm LEDs, copper tape or copper tape adhesive conductive, Chibitronics LED stickers, 2032 coin cell battery 		
Resources to Support Unit:	<p>https://learn.sparkfun.com/tutorials/the-great-big-guide-to-paper-circuits - This site has tutorials as well as additional project links.</p> <p>Circuit Templates & Paper Circuit documents (see Sharepoint)</p> <p>https://www.sciencebuddies.org/science-actiiviess/paper-circuit</p>		