



Hex Bugs

Provided by:

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Information	Program Description
Kindergarten-5th grade	This curriculum provides a hands-on learning experience for students with Hex Bugs (mini robots) and the Engineering Design Process. Students explore science, engineering, technology, and art, as well as forces and interactions that connect these concepts to every day life.
Curriculum Format	Each lesson can be presented in 45-60 minutes. Teaching Guide with complete instructions is provided. Teaching Kit with materials needed to present lessons is provided. User may need to provide standard classroom supplies (pencils, scissors, glue). If a lesson requires perishable items (e.g. milk), user is responsible for these purchases.
Lesson	Overview
One: Build a Maze	Students will identify and apply the Engineering Design Process by planning, designing, building, testing and improving a maze for Hex Bugs.
Two: Forces and Interactions	Students will recognize and identify forces and interactions (pushes, pulls, friction and gravity) by using, observing, comparing and contrasting various materials with Hex Bugs.
Three: Painting with Hex Bugs	Students will recognize that vibrating materials transfer energy and create movement by painting with Hex Bugs.
Four: Build a Hex Bug Habitat	Students will identify and apply the Engineering Design Process by planning, designing, building, testing and improving a habitat for a Hex Bug.
Five: Build a Hex Bug Robot	Students will identify and apply the Engineering Design Process by planning, designing, building, testing and improving a robot "body" that fits onto a Hex Bug, and that can be self-propelled.
Six: Build a Scribblebot with Hex Bugs	Students will identify and apply the Engineering Design Process by planning, designing, building, testing and improving a scribblebot (a self-propelled robot marker) that is powered by a Hex Bug and can draw or create art.

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