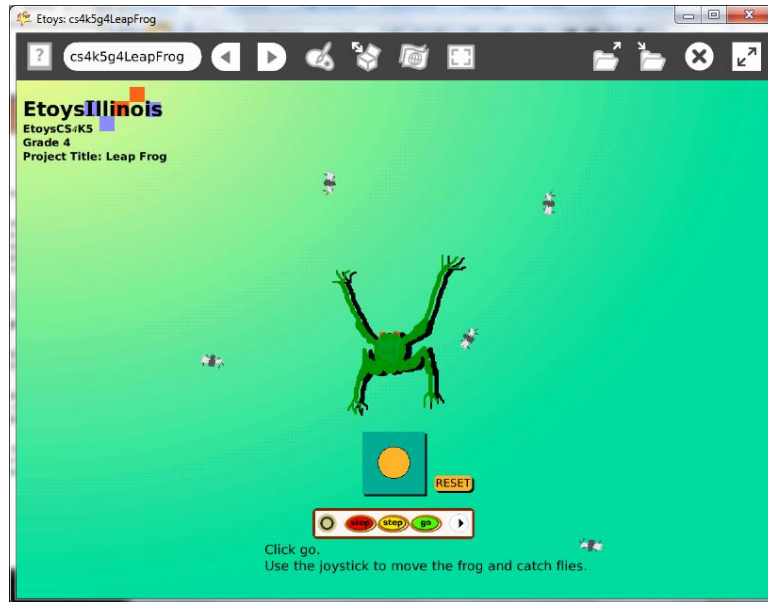


EtoysIllinois
 EtoysCS4K5
Grade 4
Leap Frog

Description: Students will:
 Draw two views of a frog, legs bent and legs extended.
 Create an animation using the drawings.
 Create a script for the frog to make it move.
 Draw a fly and create a script to make it move.
 Create a script that moves the frog using a joystick control.
 Modify the color and size of the joystick to give more or less control to the player's ability to move horizontally or vertically.
 Modify the color of the world color.
 Discuss how changing the proportions of the joystick change its effect.
 Create a script using a test condition so if the frog touches the fly, the fly disappears.
 Create a reset script to return the flies to the screen.

Project View

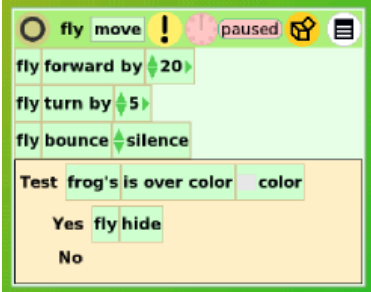


Subject: Mathematics

Etoys Quick Guides Click the question mark in Etoys to open the set of interactive tutorials for basic tools and techniques.

Vocabulary: Animation, increase by, decrease by, forward, heading, orientation,

<p>Script Tiles: Hide and Show</p>	<div data-bbox="750 231 1015 856" data-label="Image"> </div> <p>Discuss student's ideas about the rhythm of the motion they selected. Give students time to look at other nearby projects and modify their project after seeing other ideas.</p> <p>Hide the holder by making clicking the yellow exclamation mark beside the tile: holder hide.</p> <p>Keep the project.</p>
<p>Lesson 3 Supplies: Joystick</p>	<p>Make a script using a joystick to control the motion of the animated frog.</p> <p>The size and color of the joystick and its small ellipse can be changed. Changes in size will change the responsiveness of the action. Experiment.</p> <p>Keep the project.</p>
<p>Lesson 4: Script Tiles: Forward by and Turn by Script Tiles: Bounce Script Tiles: Test Category</p>	<p>Draw a fly, mosquito, dragonfly or water bug such as a damsel fly. Make a script for it with forward, turn, and bounce tiles.</p> <p>Give students time to experiment with the script and adjust forward and turn values to make the motion look the way they want it to look.</p> <p>Add a test to the script to make an insect disappear if it is touched by</p>

<p>Halo Handles: Size, Color, Copy</p>	<p>the frog.</p>  <p>Populate the frog’s environment with a rich resource of food. Make copies of the insect; they will have the same script. These scripts can be modified so that the motion is not predictable.</p> <p>Keep the project.</p>
<p>Lesson 5</p> <p>Menus: Button Fires a Script</p>	<p>Give students time to think, to make decisions and to change scripts. Ask them to estimate the amount of control they will have in another student’s project based on the size and shape of the joystick. Discuss their project and their experiments with other student’s projects.</p> <p>Make a reset script that makes the hidden insects reappear. The flies have been moving even though they were hidden so they will reappear wherever they are.</p> <p>This example project’s reset script does not reposition the frog or the flies. An alternative reset script would control x and y axis values so that the frog and insects always started in the same location.</p> <p>Give students time to try other student’s projects. Discuss.</p> <p>Rename the project: nameFrogFinal.</p>
<p>Standards:</p>	<p>Common Core Standards Mathematics:</p> <p>Bloom’s Taxonomy/Cognitive Domain: Knowledge: knows, selects Analysis: analyzes, compares, experiments Synthesis: modifies</p> <p>NETS</p>

	1. a, b, c 2. a 3. a, b 4. b 6. a
Resources:	Etoys Help Quick Guides: always available in Etoys. Open Etoys and click the question mark to open a set of interactive tutorials of basic tools and techniques. www.etoysillinois.org projects, lesson plans, software download www.mste.Illinois.org more math, science, and technology resources www.corestandards.org Common Core Standards www.squeakland.org software and Etoys projects www.nctm.org Standards and Focal Points for each grade level
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