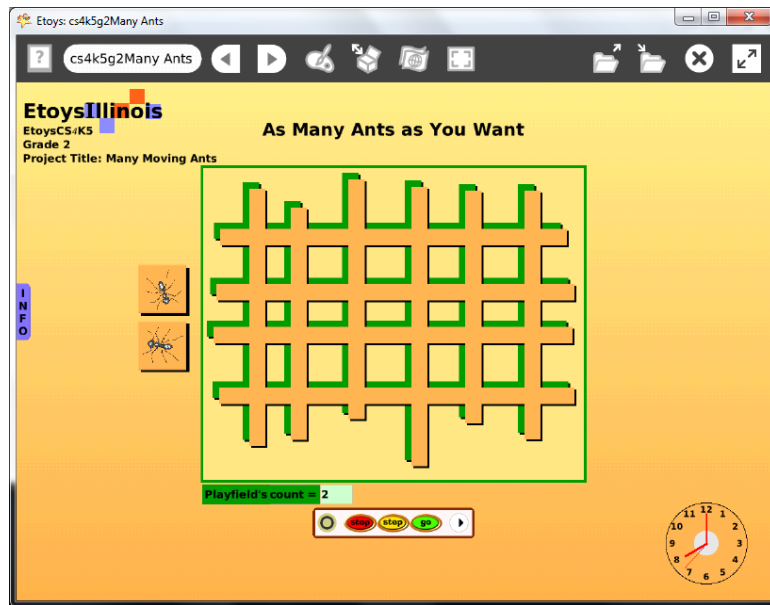


EtoysIllinois
 EtoysCS4K5
Grade 2
Many Ants

Description: Students will:
 Draw the overhead view of an insect; include: head, thorax, abdomen, six legs.
 Create a forward and turn script for the insect.
 Experiment with different forward and turn values; observe and describe.
 Add a bounce tile to the script. Experiment. Explain.
 Add random number generator tiles to forward and/or turn.
 Discuss the effect of the random numbers in the scripts.
 Put insects on Maker Buttons to create an endless supply.
 Estimate how long it will take to put 100-1000 copies in the playfield.
 Estimate how many ants can be put in the playfield in one minute.

Project View



Subject Mathematics, Science

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

Vocabulary X axis, Y axis, heading, forward, turn, random, shapes, patterns, add, subtract, counting to 100, 1000, straight line, curve, arc, circle, colors,

<p>Lesson 1: Paint Tools: Brushes</p> <p>Object Catalog: Digital Images</p> <p>Script Tiles: Forward by and Turn by</p> <p>Supplies: Maker Button</p>	<p>width, length, above, below, beside, between</p> <p>Draw an ant. Hint: photos can be dragged into Etoys and traced for an accurate representation. Keep the traced drawing and discard the photo.</p> <p>Make a script with forward and turn. Experiment with many combinations of numbers in this script.</p> <p>Catch the ant in motion and put it on a maker button. All the copies will have the same script ticking when they are pulled off of the maker button. Experiment.</p> <p>Draw a background environment for the project. Copy it and change the color to create layers. It is possible to make ants appear to be below, between, and above the layers. Experiment.</p> <p>Keep the project. Call it nameAnts; KateAnts</p>
<p>Lesson 2:</p> <p>Menus: Watchers</p> <p>Script Tiles: Random Numbers</p> <p>Supplies: All Scripts</p>	<p>Get a playfield from Supplies. Change its color with its halo's magenta tool.</p> <p>Add information about the playfield's count: open a Viewer, click on basic and choose collections. Click the white menu beside playfield's count.</p> <p>Get a copy of the ant from Lesson 1. Open its Viewer and open its script.</p> <p>Add a random number generator tile to the forward and turn tiles in Script 1. Random number tiles are found in the gold box in the top of the Scriptor.</p> <p>Control motion by changing the numbers. Experiment. Choose one of the new ants and put it on a Maker Button.</p> <p>Enjoy the sight of dozens of ants crawling around in the project. Add an All Scripts tool from Supplies.</p> <p>Add a clock from Supplies: open an Object Catalog, click on Just for Fun.</p>

	<p>Give students time to play with their project and count as far up as they can go.</p> <p>Ask questions such as: how long will it take to put 100 ants in the playfield? How many ants can be put in the playfield in 5 minutes?</p> <p>Keep the project. Call it: nameAntsFinal.</p>
Standards:	<p>Common Core Standards Mathematics; 2.OA.3; 2.NBT.2.7; 2.MD.7; 2.G.2</p> <p>Bloom’s Taxonomy/Cognitive Domain: Knowledge: knows Application: uses Analysis: analyzes, selects</p> <p>NETS 1. a 3.</p>
Resources:	<p>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.</p> <p>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</p>
kh February 2011	