



BrickLAB Core

Grades 1-6

CURRICULUM SAMPLE



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FULL KIT



PRINT MATERIALS



SAMPLE BUILD



BrickLAB Core

GRADES: 1, 2, 3, 4, 5, 6

STUDENTS Up to 30	TIME 12, one-hour lessons
SUBJECTS <ul style="list-style-type: none"> Physical Science Life Science Earth Science Math Connections English Language Arts Connections Social Studies / History Connections 	SETTINGS <ul style="list-style-type: none"> Classrooms

Hands-on lessons in Science, Math, Social Studies and Language Arts challenge learners to put their creative thinking and problem-solving skills to the test.

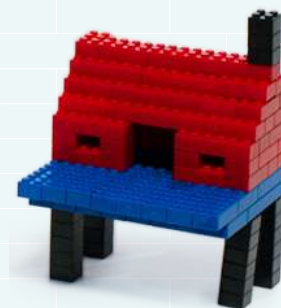
100% reusable

TECH REQUIREMENTS / PREREQUISITES

- None

PRICING OPTIONS

- Ultimate Set (1-6) - Complete Program (Bricks + Curriculum): \$1,195⁰⁰
- Single Grade - Complete Program (Bricks + Curriculum): \$830⁰⁰
- Ultimate Set (1-6) - Curriculum Only: \$695⁰⁰
- Single Grade - Curriculum Print & Digital: \$350⁰⁰



Scan OR Click QR Code for:

PRODUCT ORIENTATION

FULL MATERIALS LIST

STANDARDS & ALIGNMENT

CONTACT US:

Call: (800) 429-3110

Email: sales@edventures.com

Web: edventures.com



CURRICULUM TOPICS

GRADE



SCIENCE:

Habitat
Light and Shadow
Seasons

MATH:

Measuring with Bricks
Estimation
Spatial Relations

SOCIAL STUDIES:

Building a Community
Families
Maps

LITERACY:

Snowman Rhyme
Bricktionary
Cupcake

GRADE



SCIENCE:

Brick Flinger
Heat Absorption
Lifecycle of a Flower

MATH:

Communicative Properties
More, Less or Equivalent
Neighborhood Datagraph

SOCIAL STUDIES:

Community Leaders
Home, Near and Far
Your Neighborhood

LITERACY:

Story Graph
Listen and Build
Punctuation Marks

GRADE



SCIENCE:

Lifecycle of a Butterfly
Masters of Camouflage
Single Cell Organism

MATH:

Combinations
Math Maze
Regrouping

SOCIAL STUDIES:

Factories Past and Present
Fire Station
Our Great Community

LITERACY:

Storymapping
★ Descriptive Writing
Figurative Writing

GRADE



SCIENCE:

Sources of Energy
Simple Machines
Solar System

MATH:

Which is Heavier?
Lines and Angles
Polygons

SOCIAL STUDIES:

Flat State
Geographic Features
The Bartering System

LITERACY:

Moral of the Story
Parts of a Speech
Persuasive Paragraph

GRADE



SCIENCE:

Plate Tectonics
Habitats and Ecosystems
Earth's Core

MATH:

Perimeter and Area
Graphing
Fractions

SOCIAL STUDIES:

Topographic Maps
Civil War Ships
Exploration

LITERACY:

Cause and Effect
Language Patterns
Sentence Types

GRADE



SCIENCE:

Earth's Gravity
Coefficient of Friction
Center of Gravity

MATH:

Fractions
Story Problems
Volume

SOCIAL STUDIES:

Aqueduct
Resources
Lost Cities

LITERACY:

Expository Writings
Genres
Plot Diagram

Lines and Angles



MATERIALS

- BrickLAB
- Pencil
- Paper
- Handout from Page 38 on Display
- Name sticks



SCHEDULE

- Anticipatory Set
- Introduction of Concept
- Guided Practice
- Independent Practice
- Closure



OBJECTIVE

Students identify the three angles: obtuse, right and acute. Students distinguish between lines, rays and line segments.



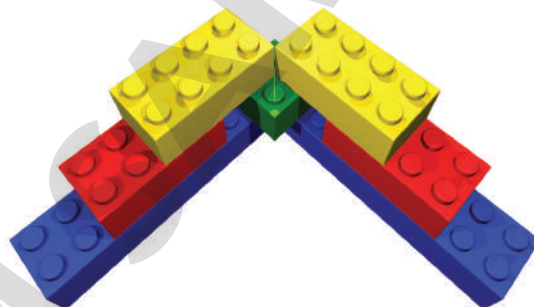
STANDARDS

- NCTM Algebra. Use mathematical models to represent and understand quantitative relationships. NCTM Geometry. Build and draw geometric objects and create mental images of objects, patterns, and paths. Use visualization, spatial reasoning, and geometric modeling to solve problems.
- ITEEA #8 Students will develop an understanding of the attributes of design. The design process is a purposeful method of planning practical solutions to problems. Requirements for a design include such factors as the desired elements and features of a product or system or the limits that are placed on the design.



PREP

Review full lesson and prepare sample build.





Whole Group

ANTICIPATORY SET

Write and physically cover the following words with paper on the board prior to the lesson: obtuse angle, right angle, acute angle, line, ray, line segment, parallel line and perpendicular line.

Create an area in the room where the students can sit in a large circle and see the activity going on in the center of the circle. In addition, each student will need a piece of paper, pencil and hard surface on which to write.

Explain to the students that they are going to work with lines and angles.

Ask for two volunteers. Ask them to lie side by side in the center of the circle without touching. Ask all other students to illustrate on their paper what they see.

Continue this process until the students have illustrated all eight angles and lines on the Lines & Angles Teacher Resource.

Redirect the students to the whiteboard and ask them to label their illustrations with one of the following words. Remind them that if they are unsure it is okay to predict. Uncover the word bank. Ask the students to share their results and defend their answers. Identify the correct answers for the students.



Whole Group

INTRODUCTION OF CONCEPT

Handout or project the Hinge Building Plans. Ask the students to build three hinges using bricks and to be sure they have a small pile of bricks on their desks (5 minutes).

Ask each student to illustrate the different types of angles and lines with the brick hinges. Each student should have eight models when they are finished: the three angles, a line, a ray, parallel lines, perpendicular lines and a line segment.



Independent

GUIDED PRACTICE

Describe a line or angle and ask the students to hold up the correct corresponding model. Choose one student to say the correct term aloud.

Example: I have no beginning and no end. Students hold up the model for line segment (10 minutes).



Independent

INDEPENDENT PRACTICE

You may want to have volunteers help with this activity.

Explain to the students that they are going on a line and angle scavenger hunt throughout the classroom and the building. Identify any restricted areas and discuss behavior expectations.

Instruct the students to use the piece of paper used earlier in the lesson.

Explain to the students that they are looking for examples of angles and lines. When they identify a line or angle, they need to write down the location and type.



Whole Group

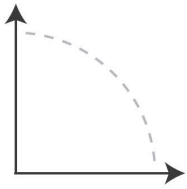
CLOSURE

Create a transparency of the Line and Angle Concentration Handout prior to starting the activity. Pass out the Line and Angle Concentration Handout. Ask the students to number each square on the backside so they get their pieces in the correct order for the activity. Students will cut out the 16 squares, flip them over, and put them in the correct order (the first horizontal row should be cards 1-4, the second row should be cards 5-8, etc.)

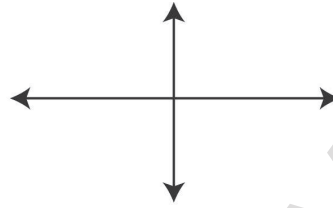
It's time to play Concentration. Pull name sticks and ask students to tell you which two cards to turn over. They will tell you if it's a match and why or why not. Students do the same at their desks. Continue pulling name sticks until all matches are found. Play again if time allows.

TEACHER RESOURCE

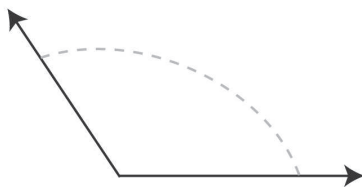
Examples of Lines and Angles



Right Angle (90 degrees)



Perpendicular Lines (lines that intersect at a 90 degree angle)



Obtuse Angle (more than 90 degrees)



Acute Angle (less than 90 degrees)



Straight Angle (180 degrees)



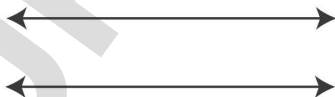
Line (no beginning and no end)



Ray (has a beginning but no end)



Line Segment (has a beginning and an end)



Parallel Lines (lines that will never intersect)

LINE AND ANGLE HANDOUT

LINE AND ANGLE CONCENTRATION

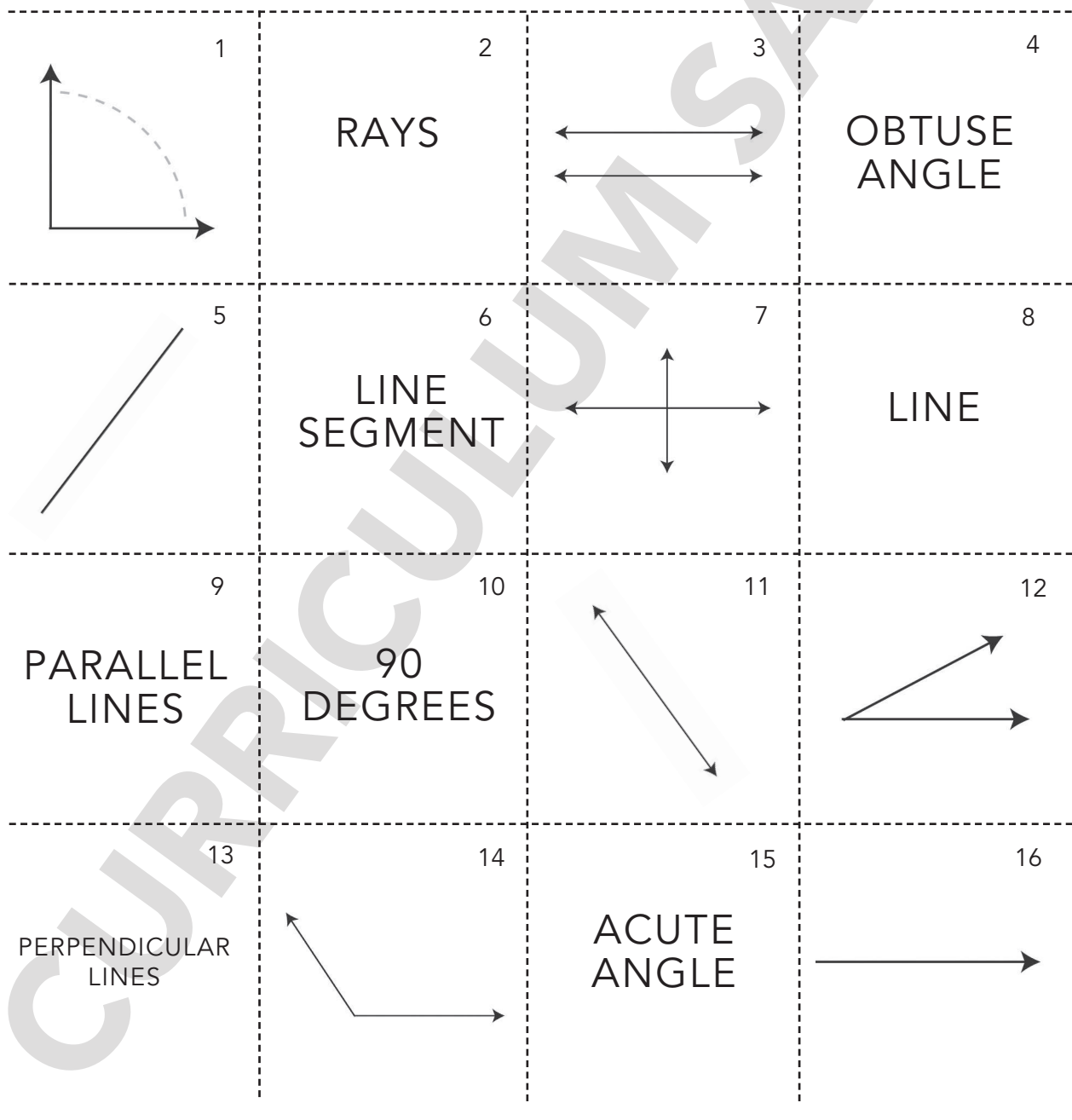
1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16

Cut these squares out.

Copy the tiny number on each square to the back side.

Be sure to keep the squares in the same position after cutting them out.

The picture on the left shows the correct placement of the squares.



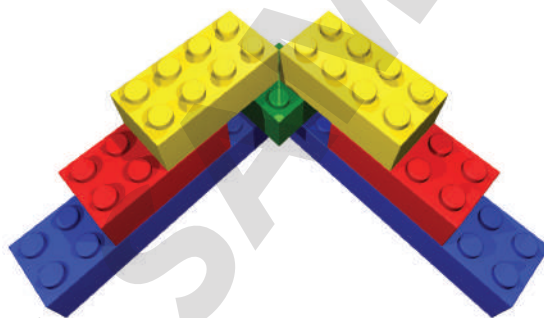
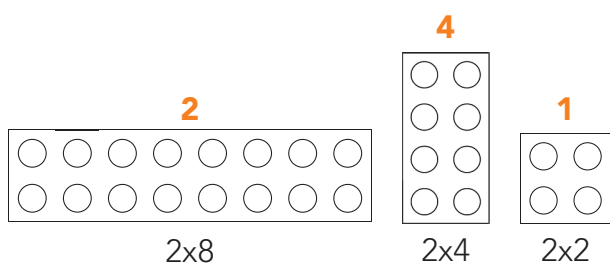
LESSON

2

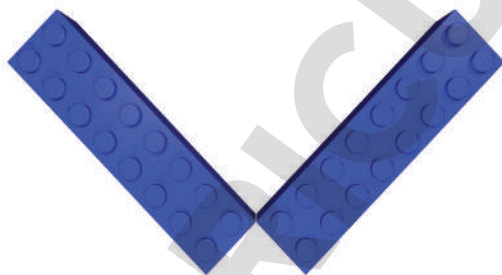
BRICK HINGE

Build a Brick Hinge

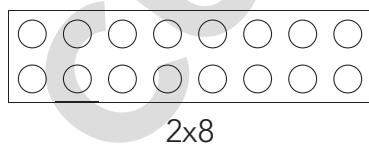
Materials:



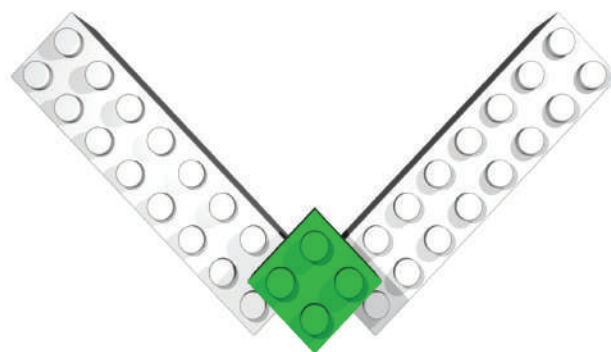
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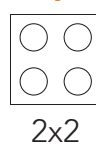
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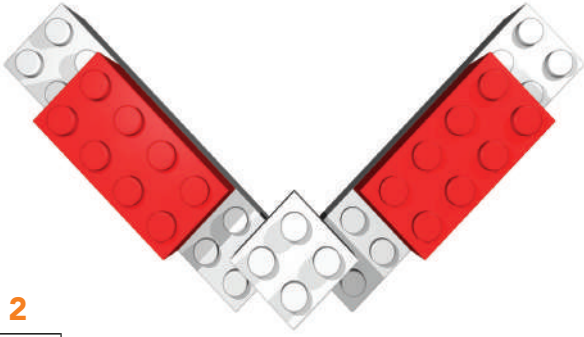
2



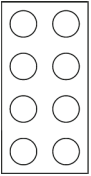
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3

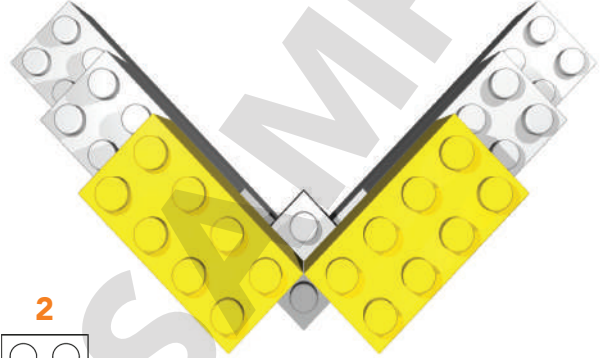


2

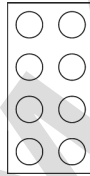


2x4

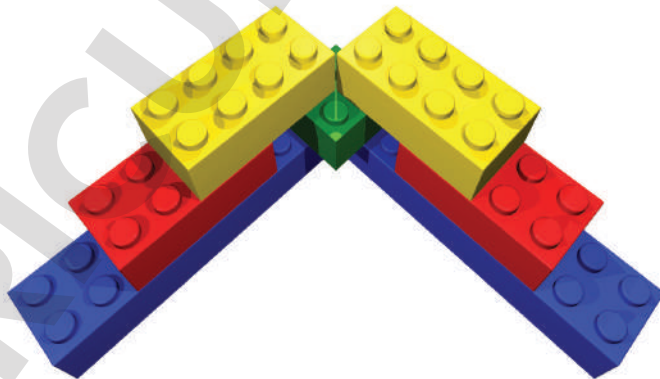
4



2



2x4



CONGRATS! YOU BUILT A BRICK HINGE.

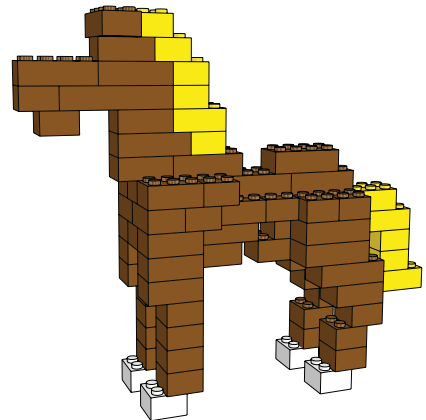
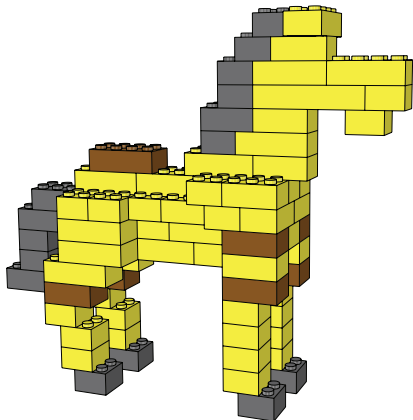


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