CLIXO
Classroom

Clixo Geometry Shapes

Activity Guide

Online Activity Page

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Overview

In this hands-on geometry activity, students will use Clixo flexible magnetic pieces to construct and explore basic 2D geometric shapes such as squares, rectangles, triangles, hexagons, octagons, pentagons, and diamonds. The activity is designed to be engaging and interactive, suitable for young learners in Kindergarten to 2nd grade. It is divided into five parts.

Objective

Introduce young students to basic 2D geometric shapes using Clixo flexible magnetic pieces and explore how their shapes and angles can change when manipulated.

Materials for Each Student

- Clixo pieces (a variety per student or pair)
- Shape cards (printable, at the end of this guide)
- Paper
- Pencils, crayons or markers
- Optional: whiteboard or other magnetic surface for showing example shapes

Ages

K–2

Duration

60–75 minutes

Skills

- Shape recognition
- Understanding basic geometric properties
- Introduction to angles
- Spatial reasoning
- Fine motor skills
- Collaboration and teamwork



Part 1 Identifying & Constructing Shapes (15 minutes)

Objective: Introduce students to basic 2D shapes and their properties.

Activity

- Show students images or physical examples of each shape.
- Have students use Clixo pieces to construct each shape.
- Help students name each shape and discuss its properties (number of sides, corners).

Shapes

- Square: 4 equal sides, 4 right angles (90 degrees each)
- Rectangle: Opposite sides are equal, 4 right angles (90 degrees each)
- Diamond: 4 equal sides, opposite angles are equal
- Triangle: 3 sides (regular – all sides are equal)
- Pentagon: 5 sides (regular – all sides are equal)
- Hexagon: 6 sides (regular – all sides are equal)
- Octagon: 8 sides (regular – all sides are equal)



Part 2 Manipulating Shapes (15 minutes)

Objective: Explore how shapes can change when manipulated.

Activity

- Using the shapes the students constructed out of Clixo pieces, ask students to bend and manipulate the shapes, observing how they can change form.
- Discuss how the shapes look different when they are bent or manipulated.



Part 3 Creating New Shapes (10 minutes)

Objective: Encourage creativity by combining shapes to form new shapes.

Activity

- Ask students to describe and name the new shapes they have created.
- Discuss the properties of these new shapes (e.g., number of sides, corners).



Part 4 Shape Hunt in the Classroom (10–15 minutes)

Objective: Help students recognize geometric shapes in their environment.

Activity

- Ask students to look around the classroom and identify objects that resemble the shapes they built with Clixo.
- Have them point out and name objects that are similar to squares, rectangles, triangles, hexagons, octagons, pentagons, and diamonds.
- Discuss how everyday objects can be related to geometric shapes (for example, a clock as a circle, a book as a rectangle).

Advanced

- Have students place their Clixo shapes on pieces of paper, and ask them to use them as a base to draw different objects (animals, buildings, foods, etc.)



Part 5 Reflection and Discussion (10–15 minutes)

Objective: Reflect on observations and consolidate learning.

Activity

- Gather students to discuss what they learned.
- Ask each to present the shapes they created and paper drawings with Clixo shapes.
- Ask questions like:
  - Which shape was your favorite to make?
  - How did your shapes change when you bent them?
  - What new shapes did you create?
  - What classroom objects did you find that matched the shapes you built?
- Summarize key points about shapes and encourage students to explore more with Clixo at home.

Conclusion

This activity guide will introduce young students to basic 2D geometric shapes and the concept of shape manipulation. Using Clixo makes learning interactive and fun, fostering both creativity and basic geometric understanding in young learners.

Tips

- ✓ Encourage creativity and exploration.
- ✓ Attach Clixo to the whiteboard/metal surface to show students examples of shapes using Clixo.
- ✓ Allow students to work in pairs or small groups for collaborative learning.

Educational Standards

CCSS MATHEMATICS

CCSS.MATH.CONTENT.K.G.A.2
Correctly name shapes regardless of their orientations or overall size.

CCSS.MATH.CONTENT.1.G.A.2
Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes to create a composite shape.

CCSS.MATH.CONTENT.2.G.A.1
Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces.

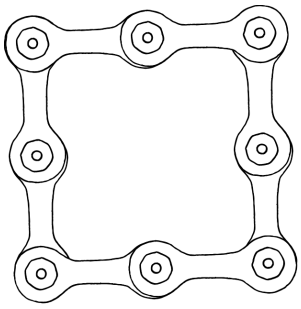
ISTE STANDARDS FOR STUDENTS

1.4
Innovative Designer: Students use a variety of technologies within a design process to identify and solve problems by creating new, useful, or imaginative solutions.

1.7.c
Contribute constructively to project teams, assuming various roles and responsibilities to work effectively toward a common goal.

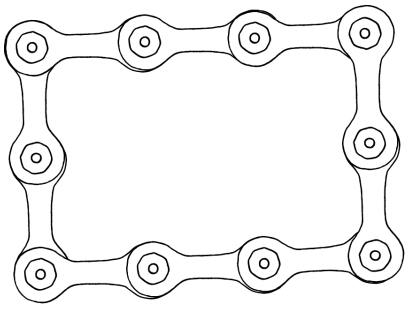
Shape Cards

Print and cut out one set of cards for each group. Students build each shape with Clixo, then match it to its card.



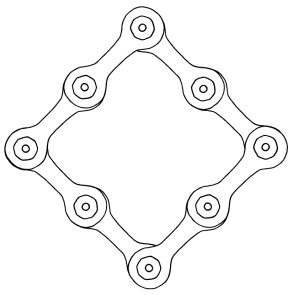
Square

4 equal sides, 4 right angles (90 degrees each)



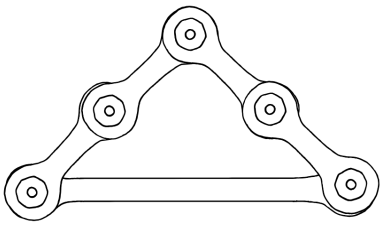
Rectangle

Opposite sides are equal, 4 right angles (90 degrees each)



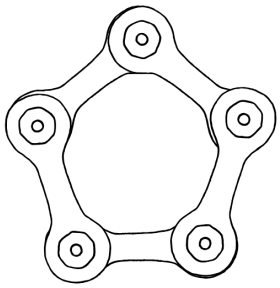
Diamond

4 equal sides, opposite angles are equal



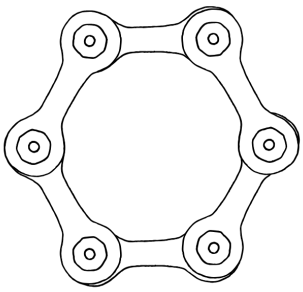
Triangle

3 sides (regular: all sides are equal)



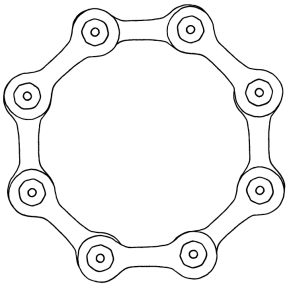
Pentagon

5 sides (regular: all sides are equal)



Hexagon

6 sides (regular: all sides are equal)



Octagon

8 sides (regular: all sides are equal)