



Dot Shapes

Grade 3

Shapes

3 levels

Probing Questions

- How do you make the shape with the band?
- How do you find the shape in the dots?
- Which dot should you connect to make this shape?

What Concepts Are Being Developed?

Students must visually match shapes by connecting dots to draw them, and must do so with dots from two shapes overlapping, and must distinguish between them.

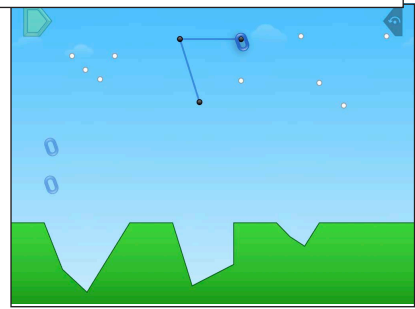
Classroom Connection

Project puzzles from Level 2. Ask students to name the shapes and their attributes. They can make other similar shapes using geoboards or dot paper.

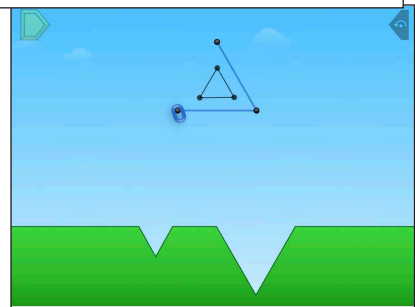
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Rubberbands can be removed by retracing and clicking on the dot.



In Level 3 the shapes may overlap.



Shapes - 1



Pick Geometric Shapes 2D

Grade 3

Shapes

2 levels

Probing Questions

- How do you know how many vertices this shape has?
- How do you know how many sides are in each shape?

What's Important Here?

This game differentiates between vertices and sides so students can classify shapes and identify shared attributes in later games.

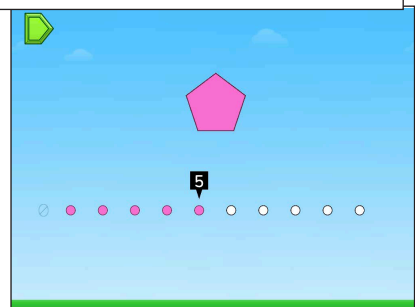
Something to Think About

Help students describe what they're doing in the games using proper vocabulary; e.g., sides and vertex/vertices (angles).

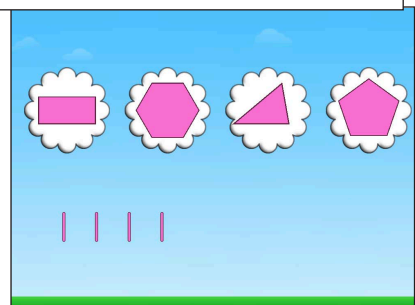
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At first students count the attribute (vertices or sides)...



...then they match the attribute to the shape.



Shapes - 2



Find the Pair

Grade 3

Shapes

3 levels

Probing Questions

- What are you supposed to do in this game?
- How does selecting the lightbulb help you?
- Why are these a pair even if they don't look exactly the same?

Uncover the Thinking

It's tough to know if students are really counting sides and corners differently, or just using one strategy for both. Ask students if it matters whether you count sides or corners.

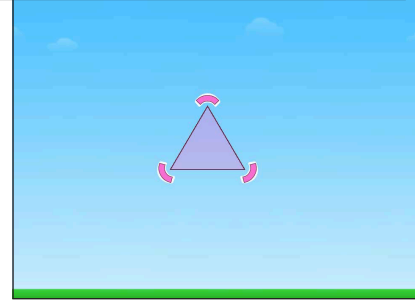
Something to Think About

In this game, students are not necessarily finding congruent pairs. They must focus on finding shapes with the same number of angles. This solidifies the visual definitions of the shapes.

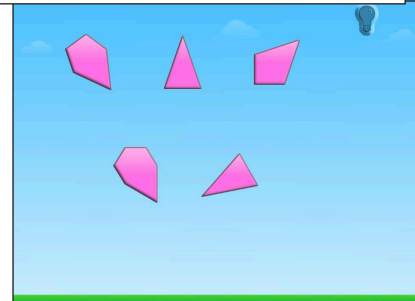
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This game only focuses on angles.



The lightbulb illuminates the angles.



Shapes - 3



Shape Types

Grade 3

Shapes

2 levels

Probing Questions

- What do you know about this shape?
- What does the animation show you about what this word means?
- What can help you remember the meaning of this word?

Something to Think About

Students practice naming polygons in this game. The word polygon means many-angles and describes two-dimensional shapes. The same root (-gon) is used for hexagon (6 angles), pentagon (5 angles), etc.

What do the Standards Say?

The drawing tool in Level 2 visually defines the attributes for the chosen quadrilaterals. This helps students develop a schema for the subtle distinctions between shapes that share attributes.

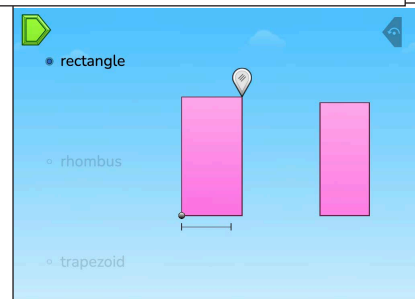
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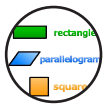
Prefixes are called out in the animation.



In Level 2, students differentiate quadrilaterals by drawing them.



Shapes - 4



Shape Types with Quadrilaterals

Grade 3

Shapes

3 levels

Probing Questions

- What is the name of this shape?
- What makes a rectangle a rectangle?
- How can this shape have more than one name?

Classroom Connection

In Level 2, use the tool that appears after you've clicked on the shape name to discuss the defining characteristics of each shape.

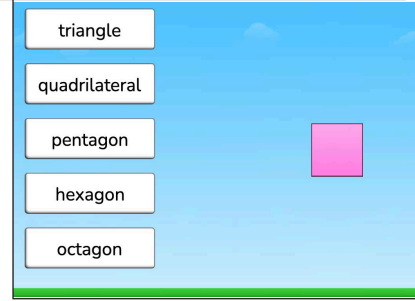
What's Important Here?

In Level 3 students develop a sense of the hierarchical nature of the categories. Students may struggle identifying a square as a quadrilateral, rectangle, and rhombus. The shape-making tool defines the attributes of that shape.

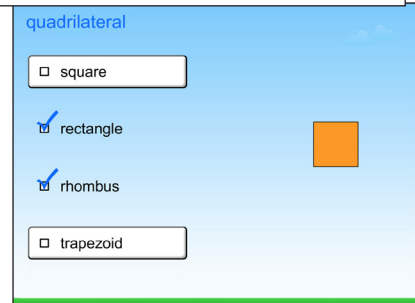
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Level 1 teaches prefixes, with -agon, and -lateral.



Some puzzles require multiple entries.



Shapes - 5



Pick Geometric Shapes 2D LI

Grade 3

Shapes

3 levels

Probing Questions

- How do you know how many sides/angles to choose?
- What helps you remember the number of sides/angles in this shape name?

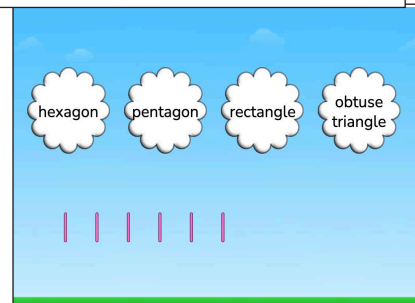
Emphasize the Connection

Help students connect the etymology of the words learned in the previous games as they play.

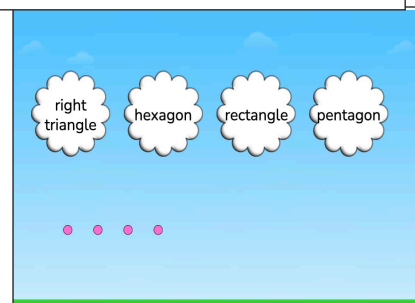
Something to Think About

Although the etymology of the word may refer to the angles, students should notice that the number of sides is the same as the number of angles.

This game focuses on building vocabulary.



In Level 3 students select the name instead of the number of sides or angles.



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Shapes - 6