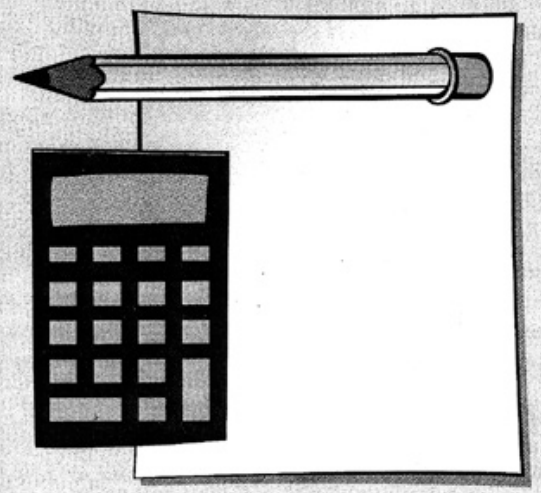
Try This!

Change for a Dollar

Materials: Dice, Price List, paper, pencils, and calculators (optional) for each person.



PRICE LIST			
Pencils	20¢	Poster board	95¢
Pens	45¢	Index cards	10¢
Erasers	25¢	Spiral notebook	$1.00
Markers	50¢	Notebook paper	5¢/sheet

- Roll dice and form a money sum with that roll (a roll of six and four could become $.64 or $.46).
- Players purchase something from the classroom store, or choose to save that amount of money, keeping track on their paper, to combine with another roll before purchasing something from the list.
- The first player to buy every item on the list wins.

Extension: Have students write shopping lists and estimate the amount needed to purchase everything on their list, then calculate the exact amount necessary.

Process Standard: Reasoning and Proof

Ms. Holden frequently asks her students to describe and reflect on their solution strategies. Think of some examples from the video of good reasoning and of reasoning that is incomplete or flawed. **How did Ms. Holden reinforce the notion of "reasonable" when examining a solution?**

Focus on Standards

Reasoning mathematically is a habit of mind, and like all habits, it must be developed through consistent use in many contexts. (NCTM, 2000, p. 56)

How does Ms. Holden address reasoning in this lesson to enable students to:

- recognize reasoning and proof as fundamental aspects of mathematics?
- select and use various types of reasoning and methods of proof?

Process Standard: Connections

Focus on Standards

How could Ms. Holden address connections in this lesson to enable students to:

- recognize and apply mathematics in contexts outside of mathematics?

How could this lesson be extended to help children understand how mathematical ideas interconnect and build on one another to produce a coherent whole?

For other connection ideas, including a unit idea for practicing computation while planning a driving vacation, including calculating travel time and determining costs of travel-related expenses, please visit Chapter 9 of our website at **www.prenhall.com/cathcart**

Reasoning and Proof continued...

Focus on Standards

How does Mr. Ramirez address aspects of reasoning and proof in this lesson to encourage children to:

- extend their reasoning?
- develop and evaluate arguments and proofs?

Process Standard: Connections

At the end of class time, Mr. Ramirez reconvenes the class as a whole group on the rug to help the children summarize the relationships they are able to visualize among geometric shapes. **How does Mr. Ramirez help children understand spatial relationships and how they interconnect?**

Focus on Standards

How does Mr. Ramirez address connections in this lesson to encourage students to:

- understand how mathematical ideas interconnect and build on one another to produce a coherent whole?

How could this lesson be extended to help children understand links between geometry, measurement, and numbers?

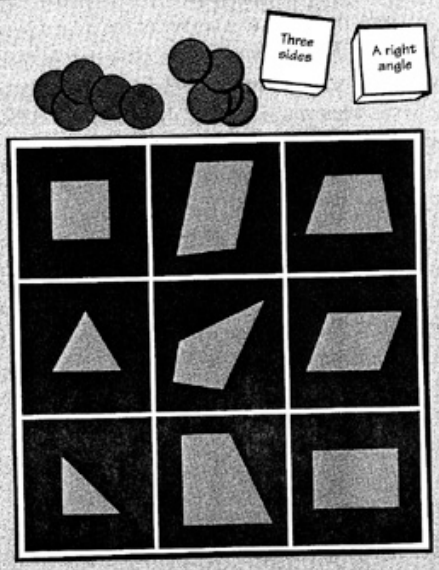
For other connection ideas, including lesson plans and games for helping children understand geometry and learn more about tessellations, polyhedra, tangrams, and geoboards, please visit Chapter 14 of our website at **www.prenhall.com/cathcart**

Try This!

Shape Bingo

For two players

Materials: 5 disks each of two different colors
2 cubes (labeled as below)
1 gameboard



Label one cube with the following faces:

Rectangle	Triangle	Four sides	Three sides	Polygon	Quadri-lateral

Label one cube with the following faces:

No 45-degree angles	A 45-degree angle	A right angle	No right angles	Parallel lines	No parallel lines

Rules:

1. The first player rolls both cubes and puts a disk on any shape on the gameboard that matches the information on the two top faces of the cubes. If a player cannot find a shape that matches, he or she loses a turn.
2. Players take turns rolling cubes and covering a shape.
3. The first player to get three disks in a row, either horizontally, vertically, or diagonally, wins.

Adaptations: The teacher can modify this game to match the concepts children are learning by changing the labels on the faces of the cubes and changing the shapes on the gameboard.