

# Trading Activities

## Trading Mat Activity

### Materials:

- trading mat (attached) – mat could be enlarged using magnifying feature on photocopier
- fraction circles (templates in the Toolkit)

Provide students with a copy of the trading mat.

Wholes	Parts

Instruct students to place fraction circle pieces (e.g., fifths), one at a time, on the Parts section of the mat, counting the pieces as they are added (“one fifth, two fifths, three fifths, ...”).

When five fifths have been placed on the mat, ask students to explain why the fraction pieces can be traded for a whole, and have them arrange the fraction pieces to form a whole circle in the Wholes section.

Next, have students continue to add fraction pieces to the “Parts” section, identifying the quantity on the mat as they proceed (“one and one fifth, one and two fifths, one and three fifths, ...”). Students can continue to add fractional pieces, arranging whole circles when appropriate, until two or three circles have been placed in the “Wholes” section.

After students have had experiences of adding fraction pieces and trading them for wholes, conduct an activity that involves decomposing wholes in fractional parts. Have students arrange fifths to form three wholes on the “Wholes” section. Have students slide a whole (five fifths) to the “Parts” section, and instruct them to remove one fifth at a time. Students should identify the quantity on the mat after each fifth has been removed. Continue until all wholes and parts have been removed.

Following the activity, ask students to explain what they learned through the trading mat activity.

## Trading Mat

Wholes	Parts

## Trading Activities (continued)

### Fill the Hexagons

#### Materials

- pattern blocks
- regular die
- “Fill the Hexagon” Game Sheet (attached)

Prior to this activity, separate the red trapezoids, blue rhombuses, and green triangles from a collection of pattern blocks.

Ask students to find ways to cover a yellow hexagon pattern block with red trapezoids, blue rhombuses, and green triangles. Establish that the yellow hexagon can be covered with 2 red trapezoids, 3 blue rhombuses, or 6 green triangles. Discuss the fractional relationship between the pattern block pieces:

- the red trapezoid is one half of the yellow hexagon
- the blue rhombus is one third of the yellow hexagon
- the green triangle is one sixth of the yellow hexagon

Arrange students into small groups of 3 or 4. Explain the game:

- Players decide whether they will use the red trapezoids (halves), blue rhombuses (thirds), or green triangles (sixths) in each round of the game.
- Players, in turn, roll a die and take the number of pattern blocks indicated on the die. Players place the pattern block pieces on the hexagon shapes on their game sheet. If the die indicates a number exceeding the remaining spaces on the game sheet, the player loses the turn.
- After each turn, players state the fraction of the hexagons that are covered (e.g., I’ve covered 2 whole hexagons and two thirds of another hexagon).
- The first player to fill all six hexagons on his or her game sheet is the winner.

After students have played the game, ask them to determine the number of halves (thirds, sixths) that are needed to create 1 whole, 2 wholes, 3 wholes, ... six wholes.

## "Fill the Hexagons" Game Sheet

