

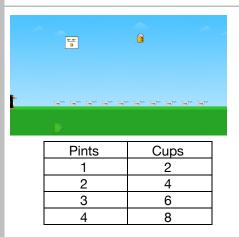
Fourth Grade

Measurement and Conversions

Capacity

Materials M

White board and markers



- Display the first puzzle in Level 1. Ask students, "What do you see? How do you think we solve this puzzle?" Have students Think, Pair, Share their answers.
- Try a student's solution. Discuss the animation and what students see. Ask students, "What do we know about the relationship between cups and pints?"
- Solve a few more puzzles. Work together to put the data from the puzzles in a table like the one below. Ask students, "How could we express the pattern we see in this table as a rule?" Work together to state that 1 pint = 2 cups.
- Display the first puzzle in Level 2. Ask students, "How is this puzzle different from the ones we just did? How do you think we solve this puzzle?" Have students turn and talk to a neighbor.
- Try a student's solution and discuss the animation. Solve 1-2 more puzzles. Say to students, "Do you see a pattern with quarts and cups like you did with pints and cups? How could we state that relationship as a rule?" Work together to post the following conversions: 2 cups = 1 pint, 2 pints = 1 quart. Solve the remaining puzzles in Level 2.





- Display the first puzzle in Level 3. Discuss gallons and how they relate to quarts. Solve a few puzzles and work together to write the conversion 4 quarts = 1 gallon. Solve the remaining puzzles in Level 3.
- Say to students, "How could we use what we've learned about capacity measurements today to find out how many cups equal 1 gallon?" Have students work together to solve and share solutions. Solve other similar problems if time allows.
- What is the purpose of the key in the upper left corner?
- Why did the key stay the same when there were more quarts shown in the sky?
- How much of a gallon would be filled if there was one quart of liquid?
- What would happen to the solution if you had one more quart?
- What might the key look like if it showed the number of gallons per quart?

How does the student:

- understand that the key shows the number of cups (pints, quarts) there are in one pint (quart, gallon)?
- understand the fractional part of the larger unit the smaller unit would fill?
- understand how to calculate other units such as pints to gallons

Directions

Sample Questions