LEGO® Education

Perimeter

Build a "fence" to practice calculating perimeter

PREPARE

Consider having examples of a yard, fence, or other images that can help students understand perimeter.

ENGAGE

Have you ever seen a fence surrounding the edge of a park, or a yard, or a field? The fence shows the perimeter or outside edge. You can determine the distance the fence covers or the perimeter by counting the distance of each side and adding them together. For example, if a yard is a square and each side is 10 feet long, you would add 10 + 10 + 10 + 10 = 40 feet. The perimeter is 40 feet. Let's try another one. If a yard is a rectangle and two sides are 10 feet each and two sides are 15 feet each, you would add 10 + 10 + 15 + 15 = 50 feet. The perimeter would be 50 feet. Remember, the height does not matter to the perimeter.

EXPLORE

Use your bricks to create a yard. You may put them end to end or have some bricks overlap.

EXPLAIN

Count the studs just on the outside of each brick on each side of the yard. Then, add the number of studs on the outside edge of the brick of each side. What is the perimeter?

ELABORATE

Make the largest yard you can. What is the perimeter?
Make the smallest yard you can. What is the perimeter?

EXTEND

When you made the different size yards, were any of the studs hidden or covered? Working with a partner, try to build two different yards that have the same area, but different perimeters.

Build a fence that would have the largest area and one that would have the smallest area with both builds having the *same* perimeter. Next, create two different "fields" with the same area, but different perimeters.