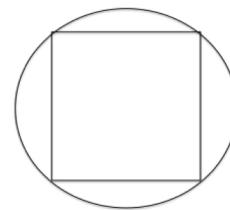


## High School Conversation Example

**Context:** During this 10<sup>th</sup> grade geometry lesson, which focused on geometrical relationships, students were asked to work in pairs to determine the length of a side of a square inscribed in a circle, describing the length in terms of  $r$ , the radius.



**Objective:** Students will apply their knowledge of area and/or the Pythagorean theorem describe the length of a side of a square inscribed in a circle, using  $r$ , the radius of the circle.

**Conversation Prompt:** Talk about ways to approach and answer the question (i.e. What is the length of a side of the squares, given the radius of the circle?) and justify your ideas.

- (1) Student A: It says to “write down the side of the inner square in terms of  $r$ .” What does that mean?
- (2) Student B: There’s no numbers so we gotta just use  $r$ , I guess.
- (3) Student A: We can measure it. Here’s a ruler. You do it.
- (4) Student B: OK. Just half across the circle. That’s the radius. Looks like 1 inch. And the square side is like around 1 and a half.
- (5) Student A: So  $r$  is 1, and it’s another half. So, like 1 and a half times  $r$ .
- (6) Student B: But what if  $r$  isn’t 1?
- (7) Student A: What do you mean? We measured.
- (8) Student A: It says ‘in terms of  $r$ .’ We got a number; not with  $r$ .
- (9) Student A: Maybe it’s close enough.

<b>Dimension 1: Turns build on previous turns to build up an idea</b>	<i>Score</i> 4-3-2-1
<i>Rationale for score</i>	
<b>Dimension 2: Turns focus on the knowledge or skills of the lesson’s objectives</b>	<i>Score</i> 4-3-2-1
<i>Rationale for score</i>	

**DIMENSION 1: Turns build on previous turns to build up an idea**

- 4 Half or more of the turns build on previous turns to effectively build up a clear and complete idea
- 3 Half or more of the turns build on previous turns to adequately build up an idea, which may be incomplete or lack clarity.
- 2 Few turns build on previous turns to build up an idea.
- 1 Turns are not used to build up an idea.

**DIMENSION 2: Turns focus on the knowledge or skills of the lesson’s objectives**

- 4 Half or more of the turns effectively focus on the lesson’s objectives and show depth or fostering of the intended learning.
- 3 Half or more of the turns sufficiently focus on the lesson’s objectives, but this focus may be superficial or lack clarity
- 2 Few turns focus on the lesson’s objectives.
- 1 Turns do not focus on the lesson’s objectives.