

Figure 4.10: Critical Lesson-Planning Questions

1. How much of the lesson and material was approached through student investigation of cognitively demanding tasks or preplanned student questioning (instead of teacher-centered lecture and demonstration)?

What evidence is there of a climate of mutual respect as students participate in mathematical discussions and provide meaningful feedback and critique the reasoning of other students?

How will students make and test predictions, conjectures, hypotheses, and estimations with the teacher and with one another?

2. What kinds of in-class formative assessments did the teacher use to reflect on the effectiveness of the lesson?

What descriptive feedback did the teacher provide to students? How did students show they were engaged in the lesson? Did the lesson design develop student interest and motivation to learn the content? How?

Did the teacher seek evidence of student understanding?

Did students have an opportunity to reflect on their learning as it relates to the learning target?

3. Which CCSS Mathematical Practices did the teacher develop for student use in order to learn the mathematics content standards?

What evidence is there that students were part of a learning community?

How did students communicate their ideas to one another and the teacher?

How did the teacher's questions elicit student thinking and other students' respectful critiquing of that reasoning?

Was there evidence students developed proficiency in the targeted CCSS Mathematical Practice for this unit?

4. What kinds of student-generated questions and conjectures were proposed in the lesson, and what type of student-led tasks were used to assess student understanding and learning?

Source: Adapted from Kanold et al., 2012.