

## Figure 4.6: Critical Lesson-Planning and Reflection Questions

1. How much of the unit's content was taught through student exploration or student questioning (instead of teacher-centered lecture)?

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 well did students make and test predictions, conjectures, hypotheses, and estimations with the teacher and with one another? (Mathematical Practices 2, 3, 5, and 6)

2. What kinds of in-class formative assessments did the teacher use to design the lesson as well as evaluate the effectiveness of the lesson?

How well did the teacher provide descriptive feedback to the students, engage students in the lesson, and develop student interest through lesson design creativity?

How well were fundamental learning targets taught with evidence of student understanding?

How well did students reflect on their own learning as it relates to the learning cluster and learning targets for this unit?

3. What CCSS Mathematical Practices did the teacher and students use 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? (Mathematical Practice 3)

4. What kinds of questions and conjectures did students propose in the early stages of the unit lessons, and what kinds of student-led summative exercises were used to measure student understanding and learning for the unit cluster?

*Source: Adapted from Kanold et al., 2012.*