**Questions for the Mathematics Classroom**

**To help students reason mathematically, ask…**

* Can you create a model or diagram to show that?
* Why is that true?
* Is it always true?
* How would you prove that?
* How did you reach your conclusion?
* What are some relationships between \_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_ solutions?

**To check student progress, ask…**

* Can you explain what you have done so far?
* What else is there to do?
* What tools do you need to help you solve the problem?
* Why did you organize your work like that?
* Why did you choose this problem solving method?
* Is there a more effective strategy?
* Do you think this would work for other numbers?

**To help students make sense of others’ work, ask…**

* Can you repeat what \_\_\_\_\_\_\_\_ just said in your own words?
* Would someone like to add on?
* Do you have another way of explaining your result?
* Does anyone have the same answer but a different way to explain it?
* Do you agree or disagree with \_\_\_\_\_\_\_\_ and why?
* Can you convince the rest of us that your answer makes sense?
* Does anyone else have comments or questions for \_\_\_\_\_\_\_\_?

**To encourage conjecturing, ask…**

* Can you predict what will happen next?
* Do you see a pattern?
* Can you explain the pattern?
* What would happen if \_\_\_\_\_\_\_\_?

**To encourage reflection, ask…**

* Can you explain how you solved the problem?
* Does your answer seem reasonable? Why?
* What ideas that we have learned before were useful in solving this problem?

Adapted from PBS TeacherLine, *Developing Mathematical Thinking with Effective Questions*

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