Instructional Strategies – Asking Questions

Scientific questions lead to explanations of how the natural world works and can be empirically tested using evidence.

Potential Instructional Strategies for *Asking Questions*
1. Ask students to share ideas of scientific questions about a specific topic. Emphasize that scientific questions should be questions that can be answered using data from investigations.
2. Provide examples and non-examples of scientific questions. Ask students to work in groups to sort the questions.
3. Model the writing of scientific questions. Demonstrate that since scientific questions can be answered using data from investigations the question should contain two variables.
4. Provide fill-in-the-blank questions for students. (Example: How does the _____ affect _____?)
5. Have students identify the variables in scientific questions (i.e. underline the independent variable, circle the dependent variable). Scaffold if necessary by doing several as a whole class and then having students practice with their own (or peers') scientific questions.
6. Provide opportunities for students to work together to write scientific questions that will be used for in-class investigations. Encourage students to critique each other's ideas and pose questions to each other as part of the discussion.
7. Have students ask scientific questions they have about a demonstrated phenomenon. Remind students that scientific questions are answerable by doing experiments.
8. Ask students to explain how they would go about answering a scientific question.

For a classroom example of instruction using this science practice, visit our website at www.sciencepracticesleadership.com and click on the Grade 2 Exemplar under Case Studies.