Planning Notes

Get Ready

- Begin with a discussion about what numbers are integers and what numbers are not integers. Make sure students understand that integers do not include fractions or decimal values.
- Review how to graph integers on a number line and how to use number lines to add and subtract integers. Stress that students need to start each question at zero.
- Review why you add the opposite to subtract integers. Ask students to evaluate families of questions while looking at the patterns. Write the pairs vertically to help students visualize the similarities and differences between each pair.

  For example, $5 - 3$ and $5 + (-3)$
  $= 2$ $= 2$

  Similarly, $3 - 5$ and $3 + (-5)$
  $= -2$ $= -2$

  Use integer chips or algebra tiles to further demonstrate this rule.
- Use integer chips or algebra tiles to model zero pairs, reinforcing the idea of opposite integers.
- Generate a list of words that translate to mathematical symbols, concentrating on words and phrases for the operations.
- Review the meaning of *expression*, *numerical coefficient*, *variable*, and *constant*. Remind students that expressions with a coefficient and a variable mean multiply (e.g., $3x$ means $3 \times x$).
- Provide students with **BLM 5–1 Chapter 5 Problems of the Week** at the beginning of the chapter. Discuss the solutions with the class as you progress through the chapter. Alternatively, use this blackline master as a review exercise at the end of the chapter. Have students try at least one question. Many of these problems require students to think creatively and try a variety of approaches. Students can take these problems home or work in class with other students when time permits.

Math Link

- Discuss when and where people use number tricks. You may wish to use a video clip as a starter. Go to **www.mathlinks9.ca** and follow the links for some possible clips or number puzzles.
- Students may struggle to translate the steps into mathematical expressions. Consider having students work through the example as a class or in pairs, followed by class discussion.

Foldable

- The left front shutter of the Foldable reviews key terms students will need to know for polynomials. The chart at the bottom is a direct link to Section 5.1.
- Section 5.1 is the basic building block for the terminology associated with polynomials. Be certain that you discuss the terms first, and have students generate several examples together before they provide their own example. The table at the bottom of the centre page allows students to demonstrate their understanding and to develop their own summative example by applying what they have learned in this section.
- In Section 5.2, encourage students to show that they can distinguish between like and unlike terms. Although the diagrams are shaded, you may wish to allow visual learners to colour the tiles.
- Section 5.3 is covered in the layered book in the centre section. It has an extra section inserted that addresses adding the opposite to subtract polynomials. Spend enough time on this section that students are able to generate several of their own examples of adding the opposite.
- You may find it helpful to have students write examples of common errors they make in the What I Need to Work On section. Have them use a coloured pencil to identify where they have been making the error. This type of visual approach may help them correct their misunderstanding.