metic problem. It enhances the meaning of counting and facilitates children's problem-solving and arithmetic skills. A group-learning experience in which children take turns counting and reasoning is also an opportunity for the teachers to observe and learn about individual children's understanding of number. A context that represents a real-life setting, in particular, makes mathematics more engaging and fun, as children experience different roles in buying and selling bagels. Think of other real-life settings you can bring into the classroom or arrange outside to provide the children with a meaningful context for counting and doing arithmetic (e.g., a grocery store, shoe store, a train with a conductor collecting tickets from passengers).

Engaging Families

The following ideas may help families to develop their children's number sense:

- ✔ **Communicate to parents the broader meaning of number sense.** Teachers may need to explain to parents how they can support children's development of number sense. Often what parents know about mathematics education is based on their own school experiences and how they were taught.[15] Their view of mathematics at this age is often restricted to children being able to count to high numbers and to recite basic arithmetic facts. Some may ask for pencil-and-paper activities with numbers for their children long before children are ready. Teachers need to communicate to parents the broader aspects of developing number sense; for example, using counting in real-life situations, comparing numbers and discussing which is more or less, making estimations (e.g., How many grapes are in this bowl?), and solving simple addition and subtraction problems. The teacher should explain to parents that such meaningful experiences lay the foundation for a basic understanding of mathematical concepts for later learning of more advanced ones. She might share with parents how children are engaged in counting and reasoning with numbers in the preschool environment. Parents may try to apply similar ways to engage children with numbers at home.
- ✔ **Remind parents that daily use of numbers can become learning experiences for children.** Numbers are everywhere: in the house, on the way to school, in the grocery store, and in sport games and outdoor activities. Parents can point children to numbers and talk with them about what numbers are used for as they go about their everyday experiences. They can encourage children to count and to solve problems related to number. For example, children can count coins for purchases at the store, count the number of plates and cups when helping to set the table, count the number of crackers in the bowl, and divide them equally to two groups in order to share with a friend. Parents can talk with children about mathematical ideas. "You have five pennies, and we need seven. How many more pennies do we need?" "How do you know you both have the same number of crackers?" "How many seeds do you think are inside this apple? Now I cut it open. Let's find out." Parents should ask questions of their children rather than just telling them the answer.

✔ **Provide number-related games and books.** The teacher can also encourage parents to choose books from the local library that involve numbers and to play with children number-related games such as cards, dominos, puzzles, or board games. Parents can also use common games to engage children in counting, addition, and subtraction. For example, while playing mini-bowling at home, children can count and find out how many pins they knocked down and how many are still standing, with each turn.

Questions for Reflection

1. What have you included, or could you include, in your environment to support the development of children's counting and understanding of number?
2. Think about your group's everyday activities and routines. In what ways can you develop children's counting skills in the context of everyday routines?
3. How do you engage children in comparing numbers and use terms such as more, fewer, or same as?
4. Think about the children in your group. How do you learn about the counting and reasoning skills of individual children in your group? How do you support individual children in developing number sense? How would you modify the Bagel Shop activity to make it work for children with varying abilities?
5. What real-life settings can you set up in your preschool environment to provide a context for counting and doing arithmetic?