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# My Math-Made For You

## Collaborative Conversations in *McGraw-Hill My Math*

How many times every day do you hear “How.....” or “Why.....”? Children always have *how* and *why* questions. They are also eager to offer explanations for specific occurrences and phenomenon. These ever present questions and explanations are important to student learning. Research shows that when students are asked to verbally explain an event, they learn more than when they are simply provided the explanation. Asking students for verbal explanations requires a deeper understanding on their part and prohibits them from just memorizing and repeating an answer.

According to the Standards for Mathematical Practice, one of the skills mathematically proficient students need is the ability to communicate with others. Students must be able to communicate precisely using clear definitions in their discussions with others and when explaining their own reasoning. They should be engaged in solving problems and discussing how they solved them. Through responding to discussion questions such as “Why do you think that is true?” “Can you tell me more?” and “How did you solve that problem?” students employ and strengthen their communication skills.

Whole class, small group, and partner discussions should be routine activities in the elementary math classroom. In order for students to successfully engage in collaborative conversations and information sharing, they need explicit instruction and practice in communicating with purpose.

### **Demonstrate/Model Collaborative Conversations**

Use role playing to introduce students to collaborative conversations.

- Have the class observe as you and a volunteer act out discussing a specific topic or strategy. Have the class talk about what they observed.
- Work with a volunteer and model inappropriate collaborative conversation speaking and listening behavior. (For example, give responses that are not related to the topic or interrupt your partner as he or she speaks.) Have students tell what is *not* appropriate in your behavior. With a different

volunteer, model appropriate collaborative conversation speaking and listening behavior. Have the class compare the two scenarios they observed and tell why the behaviors in one scenario are more beneficial.

- Ask a group of students to model a collaborative conversation strategy. Give the remaining students in the class a purpose for watching and listening to the group. (For example, have students in the class focus on looking for examples of appropriate speaking and listening behavior.)

### **Institute Rules for Collaborative Conversations**

Work with students to develop rules for collaborative conversations. Make a poster with the rules written on it to hang in the classroom for easy reference.

- Identify the purpose of the conversation.
- Stay on the topic.
- Organize your thoughts before speaking.
- Take turns talking.
- Listen to the person who is talking.
- Do not interrupt each other.
- When working in pairs or small groups, talk using a soft voice.
- Ask questions when you don't understand something.

### **Evaluate Collaborative Conversations**

It is important for students to receive teacher feedback and to do self-assessments of their collaborative work.

- The teacher should provide specific feedback to the speaker and the listener.
- The teacher should identify any behavior that is leading students off track and he or she should provide suggestions to bring the conversation back to its purpose.
- Have students write down the purpose of their collaborative conversation and then use a collaborative conversation checklist to self-evaluate their discussion.

### **Collaborative Conversation Activities**

Help students build and strengthen communication skills with practice activities.

- Write the discussion topic in the middle of a large circle (for example, "How do you count and use money?"). Have students write on sticky-notes (or for younger students have them dictate and the teacher can write on the sticky-note) something that relates to the topic, a question about the topic, or add a thought they have about the topic in the circle. Place the sticky-notes around the circle.
- Give students a word problem to solve. After solving the problem, have students find another person in the room who solved the problem a different

way than they did. Encourage students to compare and contrast the different strategies they each used to solve the same problem.

- Have students form two circles—an equal number of students in each circle and one circle inside the other. Ask students to face one another—students should be in pairs. The teacher presents a problem to the class (for example, “Why does the position of each digit of a number matter?”) and the student pairs briefly discuss their responses. The teacher claps his or her hands once and the inside circle moves one position to the right and each student faces a new partner and repeats the activity. Continue the activity for one more rotation.
- Provide students with a discussion starter (for example, “What strategies can you use to subtract?”) and let them think about a response and then write their thoughts on a slip of paper. (Younger students can just think about their responses and not write them down.) Have students work in pairs and share their thoughts. Ask several student pairs to share their responses with the entire class using sentence frames such as “I think that \_\_\_\_\_.” “My partner wrote that \_\_\_\_\_.” “I agree with my partner because \_\_\_\_\_.” or “My partner and I discussed \_\_\_\_\_.”
- Place students in groups of four. Pose a question for the groups to think about (for example, “How are multiplication and repeated addition alike?”). Have one student in each group share his or her response. The other three students take turns answering but before sharing his or her response, each student must repeat the response of the previous student.