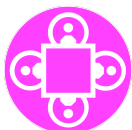


Lesson 1: Puzzle Challenge

Science is often portrayed as a solo activity—a lone scientist working endless hours in a laboratory. In reality, science is a collaborative activity that happens in a variety of spaces. The people on the team learn to work together in order to make progress. Since every person brings their own background and experience to the group, people must be aware of how they work together. We call the process of negotiating everyone’s different ways of thinking and interacting group dynamics. In this activity, you will complete a jigsaw puzzle with classmates. When you are finished, you will reflect on the group dynamics or how you worked together on the puzzle.



Groupwork Norms

- No one is done until everyone is done.
- Pay attention to what other group members need.

Part 1: Complete a Jigsaw Puzzle Together

Your teacher will tell you how Groupwork Roles will be determined for this activity. Once you have decided on Groupwork Roles, the Facilitator reads the goal, rules, and directions aloud to the group.

Goal: Work together as a group to complete one puzzle.

Rules of Jigsaw Puzzle Challenge

- You may not talk to other students in your group during this activity.
- You may silently hint or encourage group members, but you may not move or place pieces for anyone else.
- This activity is an exercise in guidance and patience. You may not touch anyone else’s pieces. You may only place your own pieces into the puzzle.

Directions

1. When your teacher says so, take the small envelopes out of the large one. Each group member gets one small envelope. Then, take the puzzle pieces out of the small envelopes. Look at the pieces you have been given. **DO NOT SHARE OR SHOW YOUR PIECES TO ANYONE IN YOUR GROUP.** In your science journal, write down "Puzzle Challenge," then write down an initial idea about what the puzzle picture is, and what evidence you have for your guess.
2. Together with your group to complete the puzzle. Be sure to follow all the rules.

Part 2: Discuss the Jigsaw Puzzle Challenge with Your Group

Group Discussion

Discuss the following questions as a group, making sure that everyone has a chance to share their ideas. Recorder/Reporter, be prepared to share out answers to Questions 4 and 5.

1. How did it feel to work as a group today?
2. What specific actions helped your group successfully complete the activity?
3. Why was it necessary that everyone fully participate in your group to complete the task?
4. How did your group use Groupwork Norms to complete the activity? Today we were practicing these two Groupwork Norms:
 - a. No one is done until everyone is done.
 - b. Pay attention to what other group members need.
5. How will this experience help you work better as a group in the future?

Part 3: Class Discussion

1. Reporter, share your answers to the Group Discussion questions with the class.
2. All group members, be ready to respond to other groups' ideas and questions.

Part 4: Clean up

1. After completing the class discussion, carefully break your puzzle up and put an equal number of puzzle pieces back in each small envelope for the next class.
2. Close the envelopes, then put the small envelopes into the large envelope.