

## Collaborative Mind Mapping

**LEVEL:** Intermediate to Advanced

**TIME REQUIRED:** 45–60 minutes

**GOALS:** To practice alternative ways of brainstorming and activating learner knowledge; to collaborate with classmates on discovering the potentials of career choices; to reinforce vocabulary related to jobs and careers; to engage in self-discovery related to career interests

**MATERIALS:** Chalk and blackboard or markers and poster paper; pens and paper; tape

**OVERVIEW:** A mind map is a type of graphic organizer that allows for short ideas to be written and linked to related ideas on a “map.” Imagine the central idea in the middle of the paper with related ideas connected to the central idea as well as to other ideas. When students step back and look at a mind map, they have a clear visual representation of how their ideas are connected.

This activity can be used to brainstorm ideas, develop existing ideas for projects and activities, or review content students have learned. The example below uses the topic of jobs and careers to demonstrate how the activity works; however, you can use the activity for other topics that fit your students’ needs and interests. In this case, students will start with a job or career that interests them, work together to compile what they collectively know about each job, and finish with a brief writing activity.

### PREPARATION:

1. As part of a unit on jobs and careers, or as a separate activity, ask students to choose a job or career that interests them.
2. Collect a large piece of paper (newsprint works well) and a marker or pen for each student. Markers work best if students are writing on large paper, but pens also work well. If paper and markers are not available, have enough chalk for each student to use.

### PROCEDURES:

1. Write on the board an example job or career idea with a few lines extending from it. This will be a template for students to follow later as they work individually. Start with an idea that is familiar to students but not likely to be a popular choice. For example, a job such as veterinarian works well if students are familiar with that career. Tell students that together you will use mind mapping to explore the chosen career—in this case, veterinarian. Tell students, “We use mind mapping because it allows for short ideas to be written and connected to related ideas.” Tell students that they will use this template to create their own mind maps later in the activity.
2. Answering specific questions will help students work on their mind maps; you can write questions on the board. The first one is the big question that starts the thinking process, while the last three

relate specifically to what should be listed on the mind map.

- a. What do you know about this job?
- b. What do people who have this job do on a daily basis?
- c. Who else works with someone who has this job?
- d. What skills are needed for this job?

- 3.** Model the activity by having students consider the career you suggested. If some students do not know that job, elicit ideas from the class. What is a veterinarian? What does a veterinarian do? (Possible answers: “A veterinarian is a doctor who takes care of animals.” “Veterinarians treat animals that are sick.” “Veterinarians help animals stay healthy.”) Once *veterinarian* is defined, have students brainstorm possible daily tasks associated with the job. Students might say “giving exams,” “giving shots,” “performing surgery,” etc. As students offer ideas, write them on the board—or better yet, have students come to the board and write their ideas. Once students have finished brainstorming daily tasks, move on to brainstorming with the class for the other questions, about people and skills.

Note that when brainstorming about people associated with the job, students might not know the necessary vocabulary. You can provide the vocabulary as students describe the person or allow students to work with the vocabulary that they have. One example might be a term like “veterinary technician.” Students might say “nurse.” At this point you could provide the term “veterinary technician” or simply write “nurse.”

Once you reach the subtopic of skills, students will likely be engaged with the activity, and so this subtopic

might generate the largest number of responses. Encourage students to offer both technical and non-technical skills needed. Some students might suggest that veterinarians must be good at biology; others might say veterinarians must be patient. The first suggestion emphasizes technical knowledge, while the second focuses on the importance of certain personal characteristics.

- 4.** After students have explored all three categories, ask them to connect some of the ideas they have come up with. For example, students could draw a line connecting “biology” to “surgery” because it is important to study biology in order to perform surgery.
- 5.** Pair students and have them share their career ideas. You might say, “Please tell your partner which job you chose, and explain why you chose that job.” This step should take just a few minutes—enough time for students to share with each other their choice and offer an explanation as to why this particular job interests them. While students talk, pass out paper, markers, and tape (or pieces of chalk).
- 6.** Tell students they will now do the same mind-mapping activity individually that they have done as a class with “veterinarian.” Tell them to use the materials you have given to them. If possible, have students choose a spot on the wall to hang their paper and begin by copying the mind map template you shared in Step 1, with their own career choice written as the central idea. The advantage of using large paper is that when students step back from their mind maps, they are able to look at their ideas from a different perspective and easily see the bigger picture. But note that if you do not have large pieces of paper, this activity can be done with any materials you have on hand. Students can stay at their desks and use paper or their notebooks to complete the activity.

7. Give students 7 to 10 minutes to fill in the subtopics on the mind map. As they write, circulate around the room, helping them with vocabulary. You could give students a time limit, or you might want to put a limit to the number of ideas they should write related to each subtopic. Advanced students could be told to write five ideas per subtopic, while intermediate students could be asked to write two ideas per subtopic.
8. Tell students they will now rotate to the right and add to the mind maps of their classmates. (If they are working at their desks, students can pass their mind maps to the person on their right.) Sometimes it is helpful to suggest that they should add three ideas to a mind map before moving to the next one, but this suggestion can be adapted to fit each classroom's needs. If you want each student to contribute to every other student's mind map, it might be best to say, "Write one idea per subtopic and then move to the next mind map." In a class of fewer than 20 students, each student can contribute to every classmate's mind map. Choose this option if you are confident all students are capable of responding to all the job subtopics.

For larger classes, you can put a time limit on the rotation, or you can group students so that they have a limited number of mind maps to work on as they progress through the activity. Another option is to group students with similar career choices together to ensure that they will each have something to say. For example, if five students have selected careers related to medicine, these students could work together, particularly since their schema related to the topic has already been activated. In addition, grouping students of similar interests gives them time to explain their career choice to the others before starting the rotation.

It is also important to let students know how much they should write during the rotation. Because the activity is based on a mind map, suggest that students write short phrases or even single words. If one student's topic is "race car driver," another student might write "good eyesight" under the subtopic of skills. Asking students to write full sentences for a mind map, or many types of brainstorming activities, places an extra burden on their cognitive load. The goal here is for students to generate ideas, and they should not be inhibited by grammar or structure.

9. Ask students to return to their own mind maps. They will then do the following steps, which can be posted on the board.
  - a. Read everything that has been added to your own mind map.
  - b. Add anything new to the subtopics, now that you have looked at your classmates' mind maps.
  - c. At the bottom of the paper, write two or three questions you still have about your career choice.
 

If students have trouble coming up with questions, you might suggest the following:

    - i. How many hours per week do people in this career typically work?
    - ii. What is the average salary for this job?
    - iii. How easy is it to find a job doing this?

10. Have students pair up with their partners from the beginning of the activity. Tell students to (a) orally summarize for their partners what they first wrote on their mind maps and (b) explain to one another

what they learned from the additions their classmates made to their maps.

**11.** Have students, still in pairs, ask the questions from their mind map to each other. Tell them to work together to come up with possible answers. These answers don't necessarily have to be accurate (for example, they might not know the actual salary for someone in the chosen career), but students should work together to propose possibilities. Together they might guess that a professional soccer player makes a lot of money but a teacher makes much less.

**12.** Have students work individually once again. Tell them that now they will compile all that they have proposed and learned about their topic. This can take the form of a short writing assignment to be done in class or for homework. Students should summarize in five to seven sentences what their mind maps tell them about their career choices. They can also mention any questions they still have about the career they chose. If you keep the questioning aspect of this activity alive and constantly engage students in the question-and-answer process, their curiosity remains high, and they continue to evaluate the information before them.

Instead of completing the activity with a writing task, students could end with a presentation to the class or a large group, summarizing what they have learned and whether their opinion of the career has changed.

**13.** Once students have completed the summary, ask them to add two sentences explaining whether they are still interested in this career choice—and why or why not.

### EXTENSION

This activity can be part of a larger unit on job or career choices. Early in a unit, after an

introduction to different types of jobs, students could complete this activity before taking on additional research for a final report or presentation on their career choice. Students could then be assigned to do further research on their choice, either by interviewing someone in their chosen field or by reading, watching, or listening to materials related to the field.

### VARIATIONS

This activity is designed to work for a variety of topics and areas of study. Here are just a few of the ways it can be used:

- Brainstorming and narrowing down a topic for a research project. Students work together to develop their own ideas for research. During rotation, they offer suggestions for possible research questions and approaches.
- Getting students excited about a topic they have yet to learn about as part of a larger unit, such as vacation planning, weather, hobbies, or holidays. Instead of choosing a career, students choose—for example—a vacation site or a hobby, generate questions as in Step 2, and then continue the activity as described.
- Pre-reading for a piece of literature where perhaps students already know something about the author or story. When students know the characteristics of a genre or the style of an author, you can use this activity to promote guessing and prediction. Students brainstorm before reading by using the author, genre, or title as a central theme. You can break the reading into parts so that students return to their mind maps to clarify predictions and offer additional predictions and questions before reading further. Collaborative mind maps can also help students make connections between plot elements, characters, and themes.
- Helping students work through and understand a process or cause-effect



relationships. Students will have to structure a mind map that shows a linear process rather than multi-layered relationships. They will start with a main topic and follow it through to a natural conclusion. For example, students might develop the steps of a recipe chronologically and then return to each step to suggest possible variations. Each variation could lead to a different end that students would work toward.

- Comparing topics—for example, to further understand two topics students have been learning about throughout a course or term. Students work with two central ideas at the start instead of one and develop both ideas during the activity. In this way, students can make clear connections between subtopics or can actively separate differences.

### SCAFFOLDING (OPTIONAL)

This activity can be adapted for many ages and levels. In order to make it less challenging for lower-level students, you can have them simply create a mind map showing what they know about their topic rather than relating ideas to specific subtopics. In addition, beginners could end with a short oral presentation rather than a written piece. More advanced students could be tasked with developing the subtopic categories at the beginning of the lesson with a prompt from the teacher such as, “What do we need to know about a job in order to understand it?”

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