Appendix A
Classroom Activities

The activities in Table A1 promote interaction in the classroom and increase opportunities for active learning. Many of these activities will also provide you with feedback about student learning and your instructional practices.

Table A1 Classroom activities to promote interaction and active learning

Classroom activities	Description/directions	Possible learning objectives	Tips/ideas for implementation
Icebreaker activities			
Mix and mingle	Provide questions on strips of paper. Give one to each student. Tell students to find a partner with whom to discuss their questions. After each person's question has been addressed, have students exchange papers and find another discussion partner.	• Meet peers and instructor; get to know each other. • Review for test. • Provide peer feedback. • Conduct self-assessment. • Collaborate with peers. • Check comprehension.	**Timing:** Set time limit or goal for the number of questions answered. **Monitoring:** Listen to student exchanges; offer clarification and guidance. **Feedback:** Identify questions that challenge, stir, and motivate; revisit these in class discussion.
Peer interview	Students interview a partner. Next, students introduce their partner to the class, sharing information gleaned from their interviews. (Pairs can exchange introductions with another pair instead of whole-class sharing.)	• Meet peers and instructor; get to know each other. • Discuss and share views on a topic.	**Reducing anxiety:** Introducing a partner rather than oneself can address the need for humility in some cultures and reduce the stress of being on the spot. **Interview topics:** Suggest talking points (e.g., personal information, interest in course, background knowledge of content).
People bingo (See Chapter 2 for a sample bingo board.)	Create two or three unique bingo cards with a statement in each square. Students find others to sign for each statement.	• Meet peers and instructor; get to know each other. • Assess background knowledge. • Review for a test or exam.	**Goals:** Choose content of squares depending on objective (e.g., icebreaker, review, assessment). **Audience:** Consider the most appropriate content for the course level (e.g., graduate, undergraduate). **Promote interaction:** Each peer can only sign once per card, so they have to meet other classmates.
Exploring content			
Muddiest points	Students jot down some points that are unclear to them. They can discuss these with a peer, post them in an online forum, or submit them to the instructor.	• Provide peer feedback. • Provide instructor feedback. • Conduct self-assessment. • Check comprehension.	**Revisiting unclear points:** Consider addressing more complex or critical concepts thoroughly in the subsequent lesson.

Jigsaw reading	Small groups of students receive part or all of a text and a handout with questions about the text. Initial groups complete their section of the handout based on their text. Students regroup so that each new group has one member from each of the original groups. Peers teach one another about their respective texts. By the end of the activity, everyone has a complete "puzzle."	Explore previously unseen text within a class period. Review assigned reading. Practice peer instruction. Collaborate with peers; work as a team.	**Group formation:** Grouping can be a challenge in jigsaw. Label texts so students locate the first group by letter and the second group by number (e.g., A1, A2, A3, B1, B2, B3).
Applying theory to practice			
Case study	Provide students with a situation or extensive real-world problem (e.g., from the news, your professional experience). You might need to provide them with supporting documents. (Excellent STEM field examples can be found at www.nsta.org/case-studies.)	• Connect theory to real-world applications. • Apply analysis, synthesis, and critical-thinking skills.	**Selection:** Make sure the case studies are not overly embedded in culture-specific knowledge; if they are, develop that background knowledge prior to the activities. **Design:** Use real-world scenarios with open-ended problems.
Role-play and simulation	Students assume the role of individuals represented in a real-life context. They prepare using resource materials that the teacher provides (e.g., background of characters, setting, problem or situation). After the role-play, discuss the incidents and alternatives.	• Realize real-life situations in class. • Interact and collaborate with peers. • Analyze an issue from multiple perspectives.	**Example role-play Situations:** historical figures and events, patient and provider in a health clinic, business proposal presentation, investigation of an environmental issue
Poster session	As with professional conferences, students design and present posters in class to showcase final projects or research (individually or in pairs or groups).	• Summarize and synthesize information. • Practice presentation and organization skills. • Conduct oneself professionally.	**Feedback:** Peers can provide feedback and reflections on others' work. **Media:** To avoid the cost and hassle of printing posters, students can create digital posters or presentations.
Panel discussion	Select students to serve as "experts" on a given topic. Each student introduces a topic to the class. The class then asks questions related to the topic. Provide necessary materials for preparation on both sides of the discussion.	• Practice peer instruction. • Invite global and cross-cultural perspectives. • Synthesize, organize, and present information. • Ask and respond to critical questions.	**Learner-centered teaching:** Let the students run the activity. Invite a student to moderate. **Accountability:** Involve "audience" members through a follow-up activity (e.g., 1-minute paper, report on discussion).

Games			
Jeopardy!	Teams choose a category and point value for questions (higher point value corresponds to greater difficulty).	• Review previously learned material (warm-up). • Review for a test or exam.	**Templates:** There are many free Jeopardy! templates available online. PowerPoint has one you can download for free—complete with timers and Daily Doubles!
Who Wants to Be a Millionaire?	Students come to the front of the classroom to be asked multiple-choice questions by a host. As with the TV show, the student can use up to three lifelines (ask a student in the class, search on internet, ask for 50/50 chance).	• Review previously learned material (warm-up). • Review for a test or exam.	**Promote class involvement:** Allow students to serve as host or to generate the questions; ask students to rate the acceptability of the response.
Standing survey	Students move across the room to represent their opinions on various issues; the issues are prepared in advance by the instructor and presented in class as statements. For example, "Stand on the left if you agree with this statement, on the right if you disagree, and in the middle if you are undecided."	• Share and compare views, opinions, and interests. • Discuss difficult (controversial) topics.	**Variation:** This activity is particularly effective as an "energy boost" in long classes, but it can be adapted by giving students "agree" and "disagree" cards that they can hold up.
Password	Students work in pairs or groups, with one student facing the board and the others with their backs to the board. The instructor writes course terms on the board, and the student who can see the word or concept must explain it to the others without using any part of it. Once the student's teammates guess the word, the "explainer" says, "Got it!"	• Review vocabulary. • Conduct self-assessment. • Collaborate with peers. • Practice peer instruction.	**Differentiation:** Students may work at different speeds. The instructor may want to put multiple terms on the board.

Reference

O'Neal, C., Meizlish, D., & Kaplan, M. (2007). *Writing a statement of teaching philosophy for the academic job search* (Occasional Paper). University of Michigan Center for Research on Learning and Teaching, Ann Arbor. http://www.crlt.umich.edu/sites/default/files/resource_files/CRLT_no23.pdf