Differentiation strategies that foster student choice, autonomy, and acknowledge multiple intelligences.

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| **Strategy** | **Example** |
| **Guided inquiry** | Instructors provide scaffolding with the SimRiver pre-lab activity and video chat with diatom scientists to help students learn how to support a claim with evidence. Collaborative workshops in class and mini-lessons foster a deeper understanding of the process of conducting a scientific experiment. An emphasis on collaboration, group problem solving, and whole-class discussion will help all students analyze diatom data. |
| **Cooperative learning roles** | Students assume diverse roles during this lesson; many activities involve partner work or groups of four. During parts 1–4 of the lab investigation, students learn the value of collaborative work while practicing interpersonal skills. |
| **Flexible Grouping** | Students work in teams of two to four to design the experiment for this lesson. While research teams check in with one another each class, we formulate new student groups and seating for many of the activities based on multiple intelligences, personality, and shared interests. |
| **Multimedia** | Digital resources add richness to this lesson during the SimRiver pre-lab activity and as students use aerial photography and the Scorecard website to evaluate sources of pollution. Teachers may demonstrate how to capture diatom images from the ocular of a light microscope using a cell phone. Students use computers, smartphones, or tablets to record data and observations or to capture video/photos for any of the activities in this lab. |