Name of Module

**AIChE Community Affiliation (e.g. Northeastern University AIChE Student Chapter)**

*Name(s) of Presenter(s)*

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| Overview | Provide an explanation of the purpose of this module, and clarify what the students will learn (i.e. learning objectives). |
| Materials and Personal Protective Equipment (PPE) | In a lettered list, please account for all materials and PPE required for all of your activities. Please remember to specify the quantities as well! (i.e. 500 ml of chemicals, 6 plastic cups per person, splash goggles, scales, etc.) |

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| I. Engage | The purpose of the first step of the 5E process (Engage) is to gain a student’s interest and attention for a particular topic. A good approach is to craft questions and/or activities such that students performing the module can thoughtfully reflect on their personal connections related to the topic you are trying to teach, essentially tasking them to think about prior knowledge and experiences. Some examples of activities include short videos relevant to the topic, a simple in-class demonstration, or a quote from a scientist or engineer that students may reflect on.   * Generate a lettered list of your questions and/or activities (with descriptions) |
| II. Explore | The second step of 5E (Explore) is where students perform a hands-on activity that investigates the topic we are trying to teach. This activity may be a demonstration or a small experiment where students collect data.   * Provide a numbered step-by-step procedure that K-12 educators/parents or members of the AIChE community can follow. If applicable, include which steps the K-12 students can actively perform, versus steps that require an instructor to execute. * Generate a lettered list of questions that instructors may wish to ask their students during this activity. |
| III. Explain | The third step of 5E (Explain) is where the teacher provides information on the topic that the student needs to know (e.g. vocabulary, context). This is also a good time for teachers to review the activity that the students performed during the “Explore” step.   * Provide an age-appropriate explanation of the principles demonstrated in the module. Be explicit with new vocabulary terms, concepts, and processes that a student may not be initially familiar with. * Cite the references of the resources (e.g. journal articles, textbooks, websites, etc) that you use. * Generate a lettered list of questions that could be asked of the students to ensure that they are understanding the new concept. |
| IV. Elaborate | The fourth step of 5E (Elaborate) is where students apply what they have learned into a new situation. This is typically accomplished by having students perform a new activity (e.g. another demonstration that employs a different system/situation, but yet able to highlight the major concept you are trying to teach; a game; or a real-world task)   * Describe the activity * Provide a numbered step-by-step procedure of the new activity that K-12 educators/parents or members of the AIChE community can follow. If applicable, include which steps the K-12 students can actively perform, versus steps that require an instructor to execute. |
| V. Evaluate | The final step of 5E (Evaluate) is where teachers perform a summative assessment of student learning of the topic. This is the part of the process where teachers can determine whether students learned the topic or not   * Generate a lettered list of questions that allows students to demonstrate that they understood the lesson that they have just learned. Include questions and correct answers. (Please do not reuse questions that were initially asked in the previous phases) |