Science Assessment Scenario

Mr. Allen’s freshman biology class is researching genetic engineering and issues related to risks and benefits of altering agricultural products. Students will use their knowledge to create proposals with well-reasoned arguments for or against genetically engineered corn to help a local farmers cooperative.

This project is built around the Next Generation Science Standards Disciplinary Core Ideas related to the inheritance and variation of traits and Cross-Cutting Concepts of cause and effect and the nature of science, as well as Science and Engineering Practices about problem solving, interpreting data, and engaging in argument from evidence. The project is also connected to the Common Core State Standards on mathematical reasoning, reading for scientific research, and writing scientific arguments.

After assigning the project and providing necessary instruction and support for the research phase, Mr. Allen uses the Let’s Assess app to distribute a research checklist to all students and asks them to use the checklist to monitor their research process as they identify, evaluate, and synthesize the information they will use for their proposals. He also distributes a project rubric he designed using a rubric from the Assessment Library as a starting point. He explains that they will use the rubric to self- and peer-assess their final proposals.

After three days of working on research, Mary uses her phone to access the checklist in the Let’s Assess App while she is riding home on the bus from a football game. While filling out the checklist, she notices that she forgot to check the dates for some of her sources and she makes a note in a reminders app on her phone to follow up on that task.

For the next few days, Mr. Allen facilitates the students’ project work by providing instruction on relevant content and skills. He logs into the Let’s Assess records, reviews students’ completion of the checklists and sets up informal conferences with students who need assistance. When groups have completed a draft of their proposal, he reminds them to complete a self-assessment and one peer assessment using the rubric he distributed to them with the Let’s Assess app. Mary uses her tablet at home to log in to the Let’s Assess app to self-assess her draft and to peer assess the draft she was assigned.

Mr. Allen has taken considerable class time providing instruction and modeling on how to give and use constructive peer feedback to improve their work, so most of the students take this task very seriously. Mary looks forward to the feedback from her peer about her proposal. Later she reads what another peer has said about her draft and uses the feedback to make several changes to her proposal.

Mr. Allen assigns a final round of self-assessment and checks into Let’s Assess on his tablet at home to see which students have completed their self-assessments. He makes a note on his calendar to remind those students who haven’t finished yet.

At the end of the project, students share their final proposals in a class showcase and submit them for grading. Mr. Allen uses the same rubric the students used to score their projects and he gives feedback to students through the Let’s Assess app.