

Student Choice in the Classroom
Utilizing AI, Virtual Learning and Digital Tools

Lesson Goals:

Pre Questions:

- How do you learn best?
- Do you like to use digital tools to learn?
- To what extent do you like to use AI in the classroom?

Post Questions:

- How effective is online learning?
- How adaptable are students in the online environment?
- How self-guided can a middle school student be in the online environment?

Lesson Plan A-in person, learning taking place in a brick and mortar classroom. Students have the choice whether to dissect a frog using a real preserved specimen or through the use of a virtual frog dissection at the end of the lab. All students will be given an end of unit quiz reviewing all the information they should have learned throughout the lab.

- **Lesson Overview:** to allow students the opportunity to choose the method, which they learn best, either Independent or guided learning, and with or without digital tools to enhance learning. Students will a frog dissection, lab guide and end of unit quiz.
- **Materials:**
 - Survey-paper copy OR Google Survey
 - Pencil or other writing utensil
 - Lab guide-paper copy OR virtual copy from Canvas LMS
 - Computer, tablet, iPad, or laptop

- High speed internet connectivity
- Subscription and login information for virtual frog dissection (McGraw Hill or other similar resource)
- Computer, tablet, or laptop
- High speed, Internet connection
- One preserved frog specimen
- Frog dissection tools (scalpel, pins, scissors)
- **Procedure:**
 - Students will complete a survey inquiring as to how they believe they learn best, and determining their willingness to utilize digital tools and resources, including AI in their daily studies
 - The teacher will compile survey results to determine student in class, preferences for learning, and use this information for lesson planning in the future
 - Students will choose to work independently or in pairs to complete the frog dissection
 - Students will choose whether they will participate in the lab using the preserved frog specimen or by using the virtual frog dissection
 - Students will follow the dissection steps as outlined in the lab guide and/or with the teacher
 - Students will complete lab guide as they work through frog dissection
- **Deliverables:**
 - Completed survey
 - Completed lab/lab guide

- Completed quiz

Lesson Plan B- Virtual or hybrid learning, taking place through a remote conferencing system

and with students working at their own pace in their home, office, or classroom

- **Lesson Overview:**

- **Materials:**

- **Procedure:**

- Students will complete the pre-lab survey using Google docs teacher will compile the answers of student learning, preferences, and use the information to apply to future lessons
- Students will participate in the virtual frog dissection, using the lab guide as their main resource, to dissect a frog independently at their own pace
- Students will submit the virtual frog dissection packet to the teacher
- Students will complete the lab overview and quiz on canvas

- **Deliverables:**

- Completed survey
- Completed lab/ lab guide
- Completed quiz

Lesson Wrap-Up

At the end of this lesson the teacher, or group of science teachers, will compare the work of both groups-the in-person group and the virtual group. The lab guides from both groups will be compared to look for completeness, quality of work, quality of answers and analyze the learning of the students during the lesson. Next, the teachers will compare the scores from the students

quizzes to determine which method of teaching and learning was more effective. It is important to keep in mind that the effectiveness of each method can change from year to year as groups of students and their specific needs change.