WySLICE Lesson Plan 1

Self Driving Moral Dilemma and Machine Learning - 1

Name of Educator:	**G. Halsey**
Grade Level/Subject(s):	**6-8 / Biology/ Medical detectives/ Computer Science**

Materials: plain blank paper, markers/ colored pencils/ pens & pencils. lined paper or graph paper.

Links: https://playgameoflife.com/

1. **What are the learning outcomes for this lesson?**

   Students will be able to describe the relationship between resources and colony growth.

   Students will be able to describe growth and decay relationships.

   Students will be able to identify, and describe equilibrium/ steady states.

2. **CS standards?**

   - *8.DA.CVT.01 Using computational tools, transform collected data to make it more useful and reliable.
   - 8.DA.S.01 Represent data using multiple encoding schemes (e.g., ASCII, binary). [Practice 4.4 Developing and Using Abstractions]

3. **How will you know whether your students have made progress towards the objective? How and when will you assess mastery? (specify assessment tools).**

   - Students Mastery of concepts or progress towards master will be identifiable when students are able to clearly describe to you their thinking and describe growth and death relationships/ define equilibrium.

4. **How do you intend to use the assessment results to differentiate learning for individuals or groups of students?**
   The final step of the lesson asks students to answer the pre test questions again with examples.

5. **How will you engage the students in learning? What will you do? What will the students do? (small groups, large groups, cooperative learning, peer teaching, etc…)**

   -Engage/ Hook 5 min - Students will start class by playing around with the Game of Life resource. Getting a feel for the engine.

-Explore/ Communicate 10 minutes - Students will be provided with the rules of the Game of life and try specific patterns.

-Communicate 5 min - Students will work with a partner to explain their findings.

-Empower 20 min- students will be given the opportunity to create their own steady state system that reaches equilibrium while continuing to move. Students can work with partners.

-Launch- 10 min - Students will be given the pre and post test questions again and be given the opportunity to revise their thinking with examples

6. **What prior knowledge will students need to have to be able to complete this lesson?**
   -Students must know what resources bacteria and humans need