**Vision** - St. Louis Public Schools is the district of choice for families in the St. Louis region that provides a world-class education and is nationally recognized as a leader in student achievement and teacher quality.

**Mission** - We will provide a quality education for all students and enable them to realize their full intellectual potential.

**Clyde C. Miller Career Academy – Weekly Virtual Learning Planner**

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| **Teacher** | Pike-Portwood | **Grade** | 9-12 | **Subject** | Biology |
| **Week of** | 10/26-11/6 | **Topic/Title** | Evolution | | |

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| **Blended Learning Instructional Framework: Whole Group Instructional Plan** | | | | | |
| **Lesson/Topic** | **Learning Target**  ***Learning targets****are short term, student-friendly statements that clearly define what students should know and be able to do at the end of the lesson.* | **Activities, Instruction & Modeling**  *What do you need to explain, present, facilitate, or model? What instructional strategies will you use? What will students do to understand concepts or practice skills (practice, discussion, reflection, creation)?* ***Synchronous learning*** *refers to a learning event in which a group of students are engaging in learning at the same time.* ***Asynchronous learning*** *is instruction and learning that does not occur in the same place or at the same time – usually independent.* | | **Formative Assessment /Exit Slip**  *How will students demonstrate their* ***daily*** *learning? How will you know if they understand concepts or can apply skills? Please provide links.* | **Due Date** |
| **Synchronous/Live Instruction** | **Asynchronous Playlist** |

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| **Lesson 16**  **10/26** | I can collect data and represent the distribution of trait variation for two populations (boys vs. girls). I can analyze a scientific paper to learn about the methods used to quantify how much white is in a juncos’ tail feathers. I can analyze data of wing length, tail length, and % white in tail feathers for the UCSD and mountain juncos populations, to support making claims about the differences in these traits between populations, variation within the population, and overlap in the variations found in both populations. | Do Now: Students will utilize their Student Activity Sheet to propose of method of investigation ways to measure the size of every juncos’ wings and the amount of white in every juncos’ tail feathers.  Engage: As a class, students will use a single method to collect data on the juncos wing length. Students will then perform calculation to figure out the mean, range, and upper and lower quartiles of their data. | EXPLORE: Students will watch a [video](https://www.youtube.com/watch?v=PDjS20kic54) explaining the differences in the various methods of research. | EVALUATE: Students will use what they’ve learned so far to complete [SEET16](https://docs.google.com/forms/d/1AliTr2fGbeh_GUYzKmbpxho1sdlnGg455T99Gzy8vHY/copy). | 10/26 |
| **Lesson 17**  **10/27-28** | I can develop a karyotype-based model, and explain how different alleles cause different feather  patterns and colors as well as different body sizes and limb proportions in pigeons. | Do Now: Students will make a post comparing the two juncos populations.  Engage: Students will review the human karyotype and compare it to juncos and [pigeons.](https://learn.genetics.utah.edu/content/pigeons/) | EVALUATE: Students will complete the Unit 1 Test. | No exit slip. | 10/27-28 |
| **Lesson 18**  **10/29-30** | I can analyze data sets to determine one major difference in the behavior can be attributed to  how they react to humans that get near them, and how close they let humans get before reacting.  I can develop models that account for  differences in this behavior and analyze evidence that suggests that this reaction time has been changing from  one generation to the next. | Do Now: Students will watch a clip from the juncos scenario.  Engage: Students will discuss how the juncos scenario relates to natural selection. Students will create a model to explain why birds respond the way they do. | EXPLORE: Students will read this [excerpt](https://docs.google.com/document/d/19XSRX02mCP6PbhMqfYcYOQXydefF4zcj1psSYsrQwGM/edit?usp=sharing) to further clarify the models suggested by Darwin and Lamarck. | EVALUATE: Students will use Darwin and Lamarck’s models to create their own model in regards to how different the juncos birds behave. | 10/29-30 |
| **Lesson 19**  **11/2-5** | I can determine if behaviors or traits are inherited or learned in birds. I can revise a thought experiment about how one might test to determine whether the juncos’ behaviors are learned or inherited. | Do Now: Students will compare their models from the previous lesson.  Engage: Students will read research articles before designing their own investigation. | Explore: Students will watch a video over genetic drift, founders effect, and bottleneck effect. | EVALUATE: Students can explain how each type of action related to genetic drift can impact a populations inherited factors. | 11/2-5 |
| **Lesson 20**  **11/4-6** | I can review how researchers test whether the behavioral differences in the two populations of juncos were due to inheritance or learning in their respective environments. I can determine that city juncos have inherited behavioral traits from their parents. | Do Now: Students will watch a video clip from the juncos scenario before reading research articles.  Engage: Students will evaluate patterns found in the data from the readings. | Explore: Students will watch a video explaining the common garden experiment process. | Lesson 20 SEET | 11/4-6 |