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**Quarter 2: Curriculum Map for Biology**

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| TN Standards | Embedded Standards | Learning Outcomes | Adopted Resources | Supplemental Resources |
| **Unit 3 -Cellular Energy-3weeks** | | | |  |
| CLE 3210.3.2 Distinguish between aerobic and anaerobic respiration.  CLE 3210.3.3 Investigate the relationship between the processes of photosynthesis and cellular respiration. | CLE 3210.  Math.2  Utilize appropriate mathematical equations and processes to understand biological concepts.  CLE 3210.  Inq.2  Design and conduct scientific investigations to explore new phenomena, verify previous results, test how well a theory predicts, and compare opposing theories.  CLE 3210. Inq.5  Compare experimental evidence and conclusions with those drawn by others about the same testable question | SPI 3210.3.2 Distinguish between aerobic and anaerobic respiration.  SPI 3210.3.3 Compare and contrast photosynthesis and cellular respiration in terms of energy transformation. | Text Prentice Hall- Ch 10 (pp. 221-239).  SE Inquiry Activity  How do living things release energy? p. 220.  TE: Build Science Skills  p. 224.  SE Problem Solving-  A Family Recipe, p.224.  TE: Demonstration, p.226.  SE Quick Lab  How does exercise affect disposal of wastes from cellular respiration?, p.231.  Chapter Lab, pp234-235.  Lab Manual A  Chapter 9 Lab  SE Issues in Biology  Should Creatine Supplements Be Banned? p. 233.  Text-Prentice Hall  (pp. 201-219).  SE Inquiry Activity  How do organisms capture and use energy? p. 200.  SE Quick Lab  What waste material is produced during photosynthesis? p. 206.  SE Analyzing Data  Rates of Photosynthesis p. 213.  Chapter Lab  Investigating Photosynthesis, p. 215.  Lab Manual A-  Chapter 8 | Cellular Respiration  <http://www.sumanasinc.com/webcontent/animations/content/cellularrespiration.html>  Cellular Respiration- Bioflex  <https://vimeo.com/10693405>  Photosynthesis  <http://www.teachertube.com/video/photosynthesis-62625>  Photosynthesis Song  <http://www.teachertube.com/video/photosynthesis-song-49549>  Photosynthesis- Bioflex  <https://www.youtube.com/watch?v=YeD9idmcX0w>  Biology Junction  <http://www.biologyjunction.com/biology_projects.htm>  Activities and Labs  Biochemistry  \*Simple Leaf Chromatography  \*Every Breath you Take  Biology Junction  <http://www.biologyjunction.com/biology_projects.htm>  Dinah Zikes Foldaable  Photosynthesis/Cellular Respiration Foldable |
| TN Standards | Embedded Standards | Learning Outcomes | Adopted Resources | Supplemental Resources |
| **Unit 4- Cell Division – 2 weeks** | | | |  |
| CLE 3210.1.4Describe the processes of cell growth and reproduction**.** | SPI 3210.Inq.4 Evaluate the accuracy and precision of data.  SPI 3210.Inq. 5 Defend a conclusion based on scientific evidence.  SPI 3210 Inq.3  Determine appropriate tools to gather precise and accurate data.  SPI 3210 Inq. 6  Determine why a conclusion is free of bias. | SPI 3210.1.6Determine the relationship between cell growth and cell reproduction. | Text-Prentice Hall  Ch 10 (pp. 241-259).  Se: Inquiry Activity  How do organisms grow? p. 240.  SE Quick Lab  What limits the sizes of cells?, p. 242.  SE Analyzing Data  Life Spans of Human Cells p. 249.  SE Chapter Labs  Modeling the Phases of the Cell Cycle pp. 254-255.  Lab Manual A  Chapter 10 Lab  SE Technology and Society  Stem Cells: Promises and Problems p. 253. | Mitosis- Internet lesson  <http://www.biologyjunction.com/biology_projects.htm>  Mitosis- Bioflex  <http://media.pearsoncmg.com/bc/bc_0media_bio/bioflix/bioflix.htm?c8emitosis>  Biology Junction  <http://www.biologyjunction.com/biology_projects.htm>  Dinah Zikes foldables  Mitosis Foldable |
| TN Ready | Learning Target | Resources | Assessments |  |
| **Unit 5 –Meiosis and Mendelian Genetics-4 weeks** | | | |  |
| CLE 3210.4.5 Recognize how meiosis and sexual reproduction contribute to genetic variation in a population.  .  CLE 3210.4.3 Predict the outcome of monohybrid and dihybrid crosses.  CLE 3210.4.4 Compare different modes of inheritance: sex linkage, co-dominance,  incomplete dominance, multiple alleles, and polygenic traits. | SPI 3210 Inq.5  Compare experimental evidence and conclusions with those drawn by others about the same testable question.  SPI 3210.  Math.2  Utilize appropriated mathematical equations and processes to understand biological concepts.  SPI 3210.Inq.4  Apply qualitative  and quantitative  measures to analyze data and draw conclusions that are free of bias. | SPI 3210.4.7 Describe how meiosis and sexual reproduction contribute to genetic variation in a population.  SPI 3210.4.4 Determine the probability of a particular trait in an offspring based on the  genotype of the parents and the particular mode of inheritance.  SPI 3210.4.5 Apply pedigree data to interpret various modes of genetic inheritance. | Text Prentice Hall Ch11 (pp.  275-278).  SE Chapter Lab  Modeling Meiosis, p. 281.  TE Demonstration p. 277.  TE Build Science Kills, p. 278.  Text-Prentice Hall Ch 11 (pp. 263-274, 279-280).  SE Inquiry Activity-  Are traits inherited? p.262  SE: Quick Lab-  How are dimples inherited? p.268.  Se Problem Solving-  Producing True-Breeding Seeds p.271.  Lab Manual A – Ch 11 Lab  TE Build Science Skills-  (pp. 263, 266, 269, 270, 279). | Meiosis-Bioflix <https://vimeo.com/86013234>  Biology Corner  How well does a Punnet Square Predict Actual Ratios?  <http://www.biologycorner.com/worksheets/penny%20genetics.pdf>  Crosses that involve 2 traits  <http://www.biologycorner.com/worksheets/penny%20genetics.pdf>  Simple Genetic Practice Problems  <http://www.biologycorner.com/worksheets/genetics_practice.html>  Practice Codominance and Incomplete Dominance  <http://biologycorner.com/worksheets/genetics_codominance.html>  Genetics: Multiple Allele Traits  <http://www.biologycorner.com/worksheets/genetics_multiplealleles.html> |