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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 ActivityHow 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 LabHow does exercise affect disposal of wastes from cellular respiration?, p.231.Chapter Lab, pp234-235.Lab Manual AChapter 9 LabSE Issues in BiologyShould Creatine Supplements Be Banned? p. 233.Text-Prentice Hall(pp. 201-219).SE Inquiry ActivityHow do organisms capture and use energy? p. 200.SE Quick LabWhat waste material is produced during photosynthesis? p. 206.SE Analyzing DataRates of Photosynthesis p. 213.Chapter LabInvestigating 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 LabsBiochemistry\*Simple Leaf Chromatography\*Every Breath you TakeBiology Junction<http://www.biologyjunction.com/biology_projects.htm> Dinah Zikes FoldaablePhotosynthesis/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.3Determine 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 ActivityHow do organisms grow? p. 240.SE Quick LabWhat limits the sizes of cells?, p. 242.SE Analyzing DataLife Spans of Human Cells p. 249.SE Chapter Labs Modeling the Phases of the Cell Cycle pp. 254-255.Lab Manual A Chapter 10 LabSE Technology and SocietyStem 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 foldablesMitosis 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.2Utilize appropriated mathematical equations and processes to understand biological concepts.SPI 3210.Inq.4Apply qualitativeand quantitativemeasures 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 LabModeling 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.262SE: Quick Lab-How are dimples inherited? p.268.Se Problem Solving-Producing True-Breeding Seeds p.271.Lab Manual A – Ch 11 LabTE Build Science Skills-(pp. 263, 266, 269, 270, 279). | Meiosis-Bioflix <https://vimeo.com/86013234>Biology CornerHow 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> |