Biology EOC STAAR ONLINE RESOURCES SPRING 2018

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| Level 1 | Level 2 | Level 3 | Level 4 |
| 1. **Vocabulary** – use the Quizlet link and study the vocabulary using one of the study methods (match, study, games). X5 2. **Video** – Watch the tutorial video. 3. **Activity** – Fill in the graphic organizer. 4. **Quiz** – Click the link and turn in a screenshot to your OneNote. | 1. **Vocabulary** – use the Quizlet link and study the vocabulary using one of the study methods (match, study, games). X3 2. **Video** – Watch the tutorial video. 3. **Activity** – Fill in the graphic organizer. 4. **Quiz** – Click the link and turn in a screenshot to your OneNote. | 1. **Video** – Watch the tutorial video. 2. **Activity** – Go to the virtual lab; complete the activity and record your information. 3. **Critical Think Questions** – Complete the questions and upload a picture into your OneNote 4. **Quiz** – Click the link and turn in a screenshot to your OneNote | 1. **Video** – Watch the tutorial video. 2. **Activity** – Go to the virtual lab; complete the activity and record your information. 3. **Create Questions** – Create 3 open ended questions and 3 multiple choice questions 4. **Quiz** – Click the link and turn in a screenshot to your OneNote |

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|  | **TEK** | **Online Resources** | **Tutorial Videos** | | **Level Activities** |
|  | **# code and topic** | **Vocabulary practice**  Quizlet- matching and game | **English** | **Spanish** | **Graphic Organizers, interactive quizzes, virtual labs** |
| RC1 | 4.A SS compare and contrast prokaryotic and eukaryotic cells | <http://quizlet.com/172368/chapter-7-cell-structure-and-function-flash-cards/> | <http://www.youtube.com/watch?v=ruBAHiij4EA> | <https://es.khanacademy.org/science/biology/structure-of-a-cell> | [QUIZ- PRO V EUK](http://www.proprofs.com/quiz-school/quizshow.php?title=prokaryotic-vs-eukaryotic-cells&q=6&next=n&sid=60489514) |
| 4.B RS investigate and explain cellular processes, including homeostasis, energy conversions, transport of molecules, and synthesis of new molecules | [cell transport](https://quizlet.com/_4apdvk)  [Active transport](https://quizlet.com/237675246/active-transport-flash-cards/) | <https://www.youtube.com/watch?v=dPKvHrD1eS4&edufilter=_2nXFUMaB1_cnY78uKT5qQ> | [cellula membrana](https://es.khanacademy.org/science/biology/membranes-and-transport/modal/v/fluid-mosaic-model-of-cell-membranes)  [difusion y osmosis](https://es.khanacademy.org/science/biology/membranes-and-transport/modal/v/diffusion-and-osmosis)  [transporte pasivo](https://es.khanacademy.org/science/biology/membranes-and-transport/passive-transport/v/passive-transport-and-selective-permeability)  [transporte activo](https://es.khanacademy.org/science/biology/membranes-and-transport/active-transport/v/sodium-potassium-pump-video) |  |
| 4.C RS compare the structures of viruses to cells, describe viral reproduction and describe the role of viruses in causing diseases such as human immunodeficiency virus (HIV) and influenza. | <http://quizlet.com/35592660/viruses-flash-cards/>  [HIV AIDS](https://quizlet.com/_4aphsi) | <http://www.wimp.com/virusinvades/>  <https://www.youtube.com/watch?v=PHp6iYDi9ko> | [Virus vs Bacteria Cell](https://www.youtube.com/watch?v=3U8XVkj8Pz4)  [VIH CIDA- HIV AIDS](https://www.youtube.com/watch?v=_tmd0j3AyE4)  [Virus reproduction](https://www.youtube.com/watch?v=qFrDnEv4jHw) |  |
| B.5A RS describe the stages of the cell cycle, including deoxyribonucleic acid (DNA) replication and mitosis, and the importance of the cell cycle to the growth of organisms | [cell cycle and mitosis](https://quizlet.com/_4apg1v)  [DNA replication](https://quizlet.com/211730825/unit-5-dna-and-dna-replication-flash-cards/) |  | [mitosis vs meiosis](https://es.khanacademy.org/science/biology/cellular-molecular-biology/meiosis/v/comparing-mitosis-and-meiosis)  [mitosis](https://es.khanacademy.org/science/biology/cellular-molecular-biology/mitosis/v/interphase)  <https://www.youtube.com/watch?v=sYyadCt10mk> |  |
| B.5B SS examine specialized cells, including roots, stems, and leaves of plants; and animal cells such as blood, muscle, and epithelium | [specialized cells](https://quizlet.com/_4aplky) | <https://www.youtube.com/watch?v=wNe6RuK0FfA>  [how cells become specialized](https://www.youtube.com/watch?v=t3g26p9Mh_k) | [stem cell- celula madres](https://www.youtube.com/watch?v=iZ2sYv3N-wY) |  |
| B.5C SS describe the roles of DNA, ribonucleic acid (RNA), and environmental factors in cell differentiation |  |  | [DNA vs RNA](https://www.youtube.com/watch?v=hM6n0ADCK4w)  [Que es ADN- DNA what is it](https://www.youtube.com/watch?v=NQaZecHCCNA)  [DNA and chromosomes](https://www.youtube.com/watch?v=TEmoSRzdlsY) |  |
| B.5D SS recognize that disruptions of the cell cycle lead to diseases such as cancer |  |  | [Que es el cancer](https://www.youtube.com/watch?v=j2cD_c6Wy2s) |  |
| B.9A RS compare the structures and functions of different types of biomolecules, including carbohydrates, lipids, proteins, and nucleic acids |  |  | <https://es.khanacademy.org/science/biology/macromolecules> |  |
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| RC2 | B.6A RS identify components of DNA, and describe how information for specifying the traits of an organism is carried in the DNA | [QUIZLET- DNA](https://quizlet.com/211739828/components-of-dna-flash-cards/) | <http://www.youtube.com/watch?v=_POdWsii7AI> | <https://es.khanacademy.org/science/biology/dna-as-the-genetic-material> |  |
| B.6B SS recognize that components that make up the genetic code are common to all organisms | [QUIZLET- DNA AS GENETIC CODE](https://quizlet.com/_48zej7) | <http://www.pbs.org/wgbh/nova/genome/media/2809_q056_03.html> | [Codigo Genetico](https://www.youtube.com/watch?v=ofs5_DYtiFs) | [QUIZ- DNA](http://www.softschools.com/quizzes/biology/dna/quiz2295.html) |
| B.6C SS explain the purpose and process of transcription and translation using models of DNA and RNA | [**QUIZLET- TRANSCRIPTION AND TRANSLATION**](https://quizlet.com/_48zfb0) | <http://www.youtube.com/watch?v=41_Ne5mS2ls> | <https://es.khanacademy.org/science/biology/gene-expression-central-dogma> | [QUIZ-TRANS & TRANSLATION](http://www.proprofs.com/quiz-school/story.php?title=biologytranscription-translation) |
| B.6D SS recognize that gene expression is a regulated process | [quizlet- gene expression](https://quizlet.com/226544961/gene-expression-flash-cards/) | <http://www.ck12.org/biology/Gene-Expression/lecture/user:13IntW/Gene-Expression/r1/> | <https://es.khanacademy.org/science/biology/gene-regulation>  [que son los genes](https://www.youtube.com/watch?v=IV3NcRKsQco) |  |
| B.6E RS identify and illustrate changes in DNA and evaluate the significance of these changes | <https://quizlet.com/211731492/dna-mutations-flash-cards/> | [www.youtube.com/watch?v=GieZ3pk9YVo](http://www.youtube.com/watch?v=GieZ3pk9YVo) | | [Quiz- DNA and Genes](http://www.glencoe.com/qe/science.php?qi=2502) |
| B.6F RS predict possible outcomes of various genetic combinations such as monohybrid crosses, dihybrid crosses and non-Mendelian inheritance | [quizlet- monohybrid](https://quizlet.com/162463657/monohybrid-flash-cards/)  [quizlet- dihybrid](https://quizlet.com/_48zggi)  [Non mendelian inheritance](https://quizlet.com/205200722/inheritance-non-mendelian-genetics-flash-cards/) | <https://www.youtube.com/watch?v=oVl8OH_7QSc> | <https://es.khanacademy.org/science/biology/classical-genetics/mendelian--genetics/v/introduction-to-heredity>  [Como seran tus hijos- mendel genetics](https://www.youtube.com/watch?v=VNvqWThAIFM) | [quiz- mendelian genetics](http://glencoe.mheducation.com/sites/0078802849/student_view0/unit3/chapter10/section2/self-check_quizzes-english.html) |
| B.6G SS recognize the significance of meiosis to sexual reproduction | <https://quizlet.com/127864264/meiosis-flash-cards/> | <https://www.youtube.com/watch?v=toWK0fIyFlY> | [meiosis](https://es.khanacademy.org/scienhttps:/es.khanacademy.org/science/biology/cellular-molecular-biology/meiosis/v/comparing-mitosis-and-meiosisce/biology/cellular-molecular-biology/meiosis/v/comparing-mitosis-and-meiosis) | [quiz- meiosis](http://glencoe.mheducation.com/sites/0078802849/student_view0/unit3/chapter10/section1/self-check_quizzes-english.html) |
| B.6H SS describe how techniques such as DNA fingerprinting, genetic modifications, and chromosomal analysis are used to study the genomes of organisms | [DNA fingerprinting](https://quizlet.com/_48zhh8)  <https://quizlet.com/_48zi06> | [**https://www.youtube.com/watch?v=DbR9xMXuK7c**](https://www.youtube.com/watch?v=DbR9xMXuK7c) | <https://es.khanacademy.org/science/biology/biotech-dna-technology> | [Quiz- DNA fingerprinting](http://www.quia.com/quiz/447670.html?AP_rand=1093351065) |
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| RC3 | B.7A RS analyze and evaluate how evidence of common ancestry among groups is provided by the fossil record, biogeography, and homologies, including anatomical, molecular, and developmental |  |  | <https://www.youtube.com/watch?v=vHd8GJopQxY>  [ancestro commun ejemplos](https://www.youtube.com/watch?v=ev7I8iBdj9A)  [Pruebas de la evolucion](https://www.youtube.com/watch?v=hIkUb1HDYVo) |  |
| B.7B SS analyze and evaluate scientific explanations concerning any data of sudden appearance, stasis, and sequential nature of groups in the fossil record |  | [Natural selection vs artificial selection](https://www.youtube.com/watch?v=9hzWbTpxME8) | [Natural selection vs artificial selection](https://www.youtube.com/watch?v=9hzWbTpxME8) |  |
| B.7C SS analyze and evaluate how natural selection produces change in populations, not individuals |  |  | [Charles Darwin selection natural](https://www.youtube.com/watch?v=QEDQfqB8_lE) |  |
| B.7D SS analyze and evaluate how the elements of natural selection, including inherited variation, the potential of a population to produce more offspring than can survive, and a finite supply of environmental resources, result in differential reproductive success |  |  |  |  |
| B.7E RS analyze and evaluate the relationship of natural selection to adaptation and to the development of diversity in and among species |  |  |  |  |
| B.7F SS analyze and evaluate the effects of other evolutionary mechanisms, including genetic drift, gene flow, mutation, and recombination |  |  |  |  |
| B.7G SS analyze and evaluate scientific explanations concerning the complexity of the cell |  |  |  |  |
| B.8A SS define taxonomy and recognize the importance of a standardized taxonomic system to the scientific community |  |  |  |  |
| B.8B RS categorize organisms using a hierarchical classification system based on similarities and differences shared among groups |  |  |  |  |
| B.8C SS compare characteristics of taxonomic groups, including archaea, bacteria, protists, fungi, plants, and animals. |  |  |  |  |
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| 44 | B.9B SS compare the reactants and products of photosynthesis and cellular respiration in terms of energy and matter |  |  | <https://es.khanacademy.org/science/biology/cellular-respiration-and-fermentation>  <https://es.khanacademy.org/science/biology/photosynthesis-in-plants> |  |
| B.9C SS identify and investigate the role of enzymes |  |  | <https://es.khanacademy.org/science/biology/energy-and-enzymes/introduction-to-enzymes/v/enzymes>  CLASS NOTES  <https://es.khanacademy.org/science/biology/energy-and-enzymes/introduction-to-enzymes/a/enzymes-and-the-active-site> |  |
| B.10A RS describe the interactions that occur among systems that perform the functions of regulation, nutrient absorption, reproduction, and defense from injury or illness in animals |  |  |  |  |
| B.10B RS describe the interactions that occur among systems that perform the functions of transport, reproduction, and response in plants |  |  |  |  |
| B.10C SS analyze the levels of organization in biological systems and relate the levels to each other and to the whole system |  |  |  |  |
| B.11A SS describe the role of internal feedback mechanisms in the maintenance of homeostasis |  |  |  |  |
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| RC5 | B.11B SS investigate and analyze how organisms, populations, and communities respond to external factors |  |  |  |  |
| B.11C SS summarize the role of microorganisms in both maintaining and disrupting the health of both organisms and ecosystems |  |  |  |  |
| B.11D RS describe how events and processes that occur during ecological succession can change populations and species diversity |  |  |  |  |
| B.12A RS interpret relationships, including predation, parasitism, commensalism, mutualism, and competition among organisms |  |  |  |  |
| B.12B SS compare variations and adaptations of organisms in different ecosystems |  |  |  |  |
| B.12C RS analyze the flow of matter and energy through trophic levels using various models, including food chains, food webs, and ecological pyramids |  |  |  |  |
| B.12D SS recognize that long-term survival of species is dependent on changing resource bases that are limited |  |  |  |  |
| B.12E SS describe the flow of matter through the carbon and nitrogen cycles and explain the consequences of disrupting these cycles |  |  |  |  |
| B.12F RS describe how environmental change can impact ecosystem stability |  |  |  |  |
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