SB1 -

Enzymes:

1. Active Art (with questions answered): <http://www.phschool.com/webcodes10/index.cfm?wcprefix=cbp&wcsuffix=1024&area=view>
2. Self Test: <http://www.phschool.com/webcodes10/index.cfm?wcprefix=cba&wcsuffix=1020&area=view>

Macromolecules:

Fill out the data table using the link below:

<https://docs.google.com/a/bufordcityschools.org/document/d/11GerG6Uk6P8E5SS_U9hXrnhNNw6rs8t1FWCL0uJDnKA/edit?usp=sharing>

<http://www.wiley.com/college/test/0471787159/biology_basics/animations/carbohydrates.swf>

<http://www.wiley.com/college/test/0471787159/biology_basics/animations/nucleicAcids.swf>

<http://www.wiley.com/college/test/0471787159/biology_basics/animations/lipids.swf>

<http://www.wiley.com/college/test/0471787159/biology_basics/animations/proteins.swf>

Fill out Macromolecule Concept Map:

<http://www.houstonisd.org/cms/lib2/TX01001591/Centricity/Domain/5364/Macromolecules%20Concept%20Map.pdf>

Cells:

1. Active Art Cell Parts (with questions answered): <http://www.phschool.com/webcodes10/index.cfm?wcprefix=cbp&wcsuffix=3072&area=view>
2. Activity Animal Cells (with questions answered): <http://www.phschool.com/webcodes10/index.cfm?wcprefix=cbd&wcsuffix=3072&area=view>
3. Active Art Diffusion (with questions answered): <http://www.phschool.com/webcodes10/index.cfm?wcprefix=cbp&wcsuffix=3073&area=view>
4. Active Art Osmosis (with questions answered): <http://www.phschool.com/webcodes10/index.cfm?wcprefix=cbp&wcsuffix=3075&area=view>
5. Active Art Active Transport (with questions answered): <http://www.phschool.com/webcodes10/index.cfm?wcprefix=cbp&wcsuffix=3076&area=view>
6. Self Test: <http://www.phschool.com/webcodes10/index.cfm?wcprefix=cba&wcsuffix=3070&area=view>
7. Active Art Cell Cycle (with questions answered): <http://www.phschool.com/webcodes10/index.cfm?wcprefix=cbp&wcsuffix=3102&area=view>
8. Self Test Cell Cycle (with questions answered): <http://www.phschool.com/webcodes10/index.cfm?wcprefix=cba&wcsuffix=3100&area=view>

SB-2

Genetics:

Active Art Punnett Squares (with questions answered): <http://www.phschool.com/webcodes10/index.cfm?wcprefix=cbp&wcsuffix=4112&area=view>

Active Art Meiosis (with questions answered): <http://www.phschool.com/webcodes10/index.cfm?wcprefix=cbp&wcsuffix=4114&area=view>

Self Test: <http://www.phschool.com/webcodes10/index.cfm?wcprefix=cba&wcsuffix=4110&area=view>

Active Art DNA Replication (with questions answered): <http://www.phschool.com/webcodes10/index.cfm?wcprefix=cbp&wcsuffix=4122&area=view>

Active Art Protein Synthesis (with questions answered):

<http://www.phschool.com/webcodes10/index.cfm?wcprefix=cbp&wcsuffix=4123&area=view>

Self Test:

<http://www.phschool.com/webcodes10/index.cfm?wcprefix=cba&wcsuffix=4120&area=view>

Active Art Genetic Engineering and Pedigrees (with questions answered):

<http://www.phschool.com/webcodes10/index.cfm?wcprefix=cbp&wcsuffix=4141&area=view>

<http://www.phschool.com/webcodes10/index.cfm?wcprefix=cbp&wcsuffix=4132&area=view>

Self Tests:

<http://www.phschool.com/webcodes10/index.cfm?wcprefix=cba&wcsuffix=4130&area=view>

<http://www.phschool.com/webcodes10/index.cfm?wcprefix=cba&wcsuffix=4140&area=view>

SB-3

Cell Energy:

1. Activity ADP and ATP:<http://www.phschool.com/webcodes10/index.cfm?wcprefix=cbd&wcsuffix=3081&area=view>
2. Active Art Respiration: <http://www.phschool.com/webcodes10/index.cfm?wcprefix=cbp&wcsuffix=3091&area=view>
3. Active Art Photosynthesi: <http://www.phschool.com/webcodes10/index.cfm?wcprefix=cbp&wcsuffix=3083&area=view>
4. Self Test Photosynthesis: <http://www.phschool.com/webcodes10/index.cfm?wcprefix=cba&wcsuffix=3080&area=view>
5. Self Test Respiration: <http://www.phschool.com/webcodes10/index.cfm?wcprefix=cba&wcsuffix=3090&area=view>

## **Virtual Labs:**

* [How do animal and plant cells work?](http://www.glencoe.com/sites/common_assets/science/virtual_labs/E08/E08.html) - labeling exercise (F)
* [What is the role of DNA and RNA in protein synthesis?](http://www.glencoe.com/sites/common_assets/science/virtual_labs/LS04/LS04.html) - match bases on DNA and RNA (F)
* [How can microscopic protists and fungi be characterized?](http://www.glencoe.com/sites/common_assets/science/virtual_labs/LS09/LS09.html) - observe and classify protists (F)
* [Under what conditions do cells gain or lose water?](http://www.glencoe.com/sites/common_assets/science/virtual_labs/LS03/LS03.html) - watch how cells react in different solutions (D)
* [How are traits passed from parents to offspring?](http://www.glencoe.com/sites/common_assets/science/virtual_labs/E09/E09.html) - punnet square practice showing traits of a strange (imaginary) primate (F)
* [How are living things classified into groups?](http://www.glencoe.com/sites/common_assets/science/virtual_labs/E07/E07.html) - 6 kingdoms, classification exercise (D)
* [How can natural selection be modeled?](http://www.glencoe.com/sites/common_assets/science/virtual_labs/LS06/LS06.html) - models how prey species adapt to a changing environment (D)
* [What kills germs?](http://www.glencoe.com/sites/common_assets/science/virtual_labs/LS08/LS08.html) - innoculate petri dishes, observe zones of inhibition around substances such as bleach and antibiotics (A)
* [Which colors of the light spectrum are most important for plant growth?](http://www.glencoe.com/sites/common_assets/science/virtual_labs/LS12/LS12.html) - compare plant growth under different colored lights (B)
* [How are fish adapted to their environment?](http://www.glencoe.com/sites/common_assets/science/virtual_labs/LS15/LS15.html) - examine the 7 main body forms of fish (flat, eel, bottom...) (D)
* [How are birds adapted to their habitat?](http://www.glencoe.com/sites/common_assets/science/virtual_labs/LS16/LS16.html) - examine beaks, wings, and feet of birds that live in different habitats (D)
* [How is energy transferred through a community of organisms?](http://www.glencoe.com/sites/common_assets/science/virtual_labs/CT06/CT06.html) - examine a food chain, identify consumers (D)
* [How do organisms react to changes in abiotic factors?](http://www.glencoe.com/sites/common_assets/science/virtual_labs/CT08/CT08.html) - test respiration rate of fish in response to temperature (A)
* [What are the different types of land environments?](http://www.glencoe.com/sites/common_assets/science/virtual_labs/LS19/LS19.html) - investigation of the world's biomes (D)
* [How is a controlled experiment performed?](http://www.glencoe.com/sites/common_assets/science/virtual_labs/E16/E16.html) - determine how color affects heat absorption using different coats (B)
* [What are the stages of development before birth?](http://www.glencoe.com/sites/common_assets/science/virtual_labs/LS26/LS26.html) - click through images of a fetus (F)
* [Modeling Ecosystems](http://glencoe.mheducation.com/sites/dl/free/0078802849/383926/BL_02.html) - create an energy pyramid and a pyramid of numbers (D)
* [Ecosystems, Organisms, and Trophic Levels](http://glencoe.mheducation.com/sites/dl/free/0078802849/383916/BL_03.html) - click through biomes, make predictions about organisms, earn points (D)
* [Communities and Biomes](http://glencoe.mheducation.com/sites/dl/free/0078802849/383927/BL_24.html) - create and maintain a virtual marine biome, adjust pH and other factors (B)
* [Population Biology](http://glencoe.mheducation.com/sites/dl/free/0078802849/383928/BL_04.html)- compare P. caudatum to P. aurelia; competitive exclusion principle (B)
* [Assessing Water Quality](http://glencoe.mheducation.com/sites/dl/free/0078802849/383929/BL_09.html) - study the effects of acid rain on different populations
* [Enzyme-Controlled Reactions](http://glencoe.mheducation.com/sites/dl/free/0078802849/383930/BL_11.html) - change the pH and amount of substrate, gather data on reaction rates (B)
* [Cellular Pursuit](http://glencoe.mheducation.com/sites/dl/free/0078802849/383931/BL_20_dev_100.html) (Game)
* [Cell Respiration](http://glencoe.mheducation.com/sites/dl/free/0078802849/383932/BL_25.html) - slide puzzle game (F)
* [Cellular Reproduction](http://glencoe.mheducation.com/sites/dl/free/0078802849/383933/BL_23.html) - view virtual slides of normal and cancerous cells (D)
* [Punnett Squares](http://glencoe.mheducation.com/sites/dl/free/0078802849/383934/BL_05.html) - choose fruit fly parents and show crosses (D)
* [Sex-Linked Traits](http://glencoe.mheducation.com/sites/dl/free/0078802849/383935/BL_15.html) - using drosophila and eye color; P, F1 and F2 generations examined (C)
* [Gene Regulation and Mutation](http://glencoe.mheducation.com/sites/dl/free/0078802849/383936/BL_26.html) - mRNA is used to determine amino acid sequences (C)
* [Gene Splicing](http://glencoe.mheducation.com/sites/dl/free/0078802849/383937/BL_22.html) - use restriction enzymes to splice genes into new organisms (C)
* [Tracking Grizzlies](http://glencoe.mheducation.com/sites/dl/free/0078802849/383918/BL_29.html) - sequence the DNA of hair samples of grizzlies (C)
* [Biotechnology: Knocking Out Genes](http://glencoe.mheducation.com/sites/dl/free/0078802849/383945/BL_07.html) - determine what happens when a gene is missing (C)
* [Plant Transpiration](http://glencoe.mheducation.com/sites/dl/free/0078802849/383946/BL_10.html) - different plants, variables are heat, fan and light (A)
* [Natural Selection](http://glencoe.mheducation.com/sites/dl/free/0078802849/383939/BL_12.html) - Hardy-Weinberg equilibrium, showing organisms on different backgrounds (B)
* [Classifying Using Biotechnology](http://glencoe.mheducation.com/sites/dl/free/0078802849/383941/BL_06.html) - using Gram stains and RNA/DNA sequencing (A)
* [Dinosaur Dig](http://glencoe.mheducation.com/sites/dl/free/0078802849/383955/BL_17.html) - estimate the age and identify dinosaur fossils
* [Learned Behavior](http://glencoe.mheducation.com/sites/dl/free/0078802849/383957/BL_19.html) - observe how mealworms react to different stimuli
* [How does the European Corn Borer affect the yield of corn](http://www.mhhe.com/biosci/genbio/virtual_labs/BL_01/BL_01.html) - model a controlled experiment by manipulating variables