<table>
<thead>
<tr>
<th>Day</th>
<th>Date</th>
<th>Essential Standard</th>
<th>Unit</th>
<th>Content</th>
</tr>
</thead>
</table>
| 1   | F 1/27 | | Introduction | 1 – Syllabus  
2 – Lab Safety  
3 – Lab Safety Quiz |
| 2   | M 1/30 | | | 1 – Lab Safety Review  
2 – Pre-test (Released State test) |
| 3   | T 1/31 | 1.1.1  
4.2.2 | | 1 – pH |
| 4   | W 2/01 | 4.2.2 | | 1 – Biomolecules |
| 5   | T 02/02 | 4.2.1 | | 1- Biomolecule  
2- Biomolecule Lab |
| 6   | F 02/03 | 4.2.1 | | 1 – Biomolecule Lab  
2 – Nutrition Lab |
| 7   | M 2/06 | 4.2.1 | | 1 – Enzymes |
| 8   | T 2/07 | 4.2.1 | | 1 – Enzymes |
| 9   | W 2/08 | 4.2.1 | | 1 – Review |
| 10  | TH 2/09 | 4.1.1 | | 1 – Review |
| 11  | F 2/10 | 4.1.1 | | 1- Molecular Biology Test Day |
| 12  | M 2/13 | 4.1.1 | | 1 – Osmosis Jones: Molecular Biology Wrap Up |
| 13  | T 2/14 | 4.1.3 | | 1 – Cell Theory  
2 – Microscopes |
| 14  | W 2/15 | 1.1.2 | | 1 – Prokaryotic Cells  
2 – Eukaryotic Cells |
| 15  | TH 2/16 | 1.1.2 | | 1 – Eukaryotic Cells |
| 16  | F 2/17 | Goal 4 | | 1 – Eukaryotic Cells  
2 – Cell Projects |
| 17  | M 2/20 | Goal 4 | | 1 – Eukaryotic Cells  
2 – Quiz on Organelles |
| 18  | T 2/21 | Goal 4 | | 1 – Cell Membranes  
2 – Cell Transport |
<p>| 19  | W Goal 4 | | | 1 – Cell Transport |</p>
<table>
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<tr>
<th>Date</th>
<th>Day</th>
<th>Topic</th>
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</table>
| 2/22 | TH  | 1.1.2 | 1 – ATP/ADP  
2 – Cell Processes Using ATP  
1 - Photosynthesis  
1 – Cellular Respiration  
2 – Fermentation  
1 – Photosynthesis & Respiration  
2 – NADH and ATP Cellular Activity  
1 – Cell Process Poster  
2 – Quiz on Goal 4 to this Point  
Benchmark Review  
All Materials Since Day 1  
Teachers Decide Which Day(s)  
**Benchmark will be based on standards taught this far. About 25-28 items will be on the Benchmark, and should take one class period to complete it.**  
1 – Cell Cycle  
2 - Mitosis  
1 - Mitosis  
1 – Meiosis  
1 – Meiosis  
1 – Comparing Mitosis and Meiosis |
| 2/23 | F   | 1.1.2, 1.1.3 | |
| 2/24 | M   | 1.1.3 | |
| 2/27 | T   | 1.1.3 | |
| 2/28 | W   | 1.2.2 | |
| 3/01 | TH  | Benchmark A  
February 27- March 3  
You may test on any day during this week. |
<p>| 3/02 | F   | 1.2.2 | |
| 3/03 | M   | 1.2.2 | |
| 3/06 | T   | 1.2.2, 3.2.3 | |
| 3/07 | W   | 3.2.1 | |</p>
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<th>Notes</th>
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<tr>
<td>29</td>
<td>TH 3/09</td>
<td>3.2.1</td>
<td>1 – Quiz Cell Cycle, Mitosis, Meiosis</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>2 – Sources of Variation</td>
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<tr>
<td>30</td>
<td>F 3/10</td>
<td>Goal 1</td>
<td>1 – Review Day</td>
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<td>31</td>
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<td>Goal 1</td>
<td>1 – Review Day</td>
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<td>32</td>
<td>T 3/14</td>
<td>Goal 1</td>
<td>1 – Structure and Function of Cells Test Day</td>
</tr>
<tr>
<td>33</td>
<td>W 3/15</td>
<td>1.1.3 3.2.1</td>
<td>1 – DNA Structure</td>
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<td>(ERS) STAFF DEV.</td>
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<td>2 – DNA Replication</td>
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<tr>
<td>34</td>
<td>TH 3/16</td>
<td>3.1.1 3.3.1</td>
<td>1 – RNA Structure</td>
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<tr>
<td>35</td>
<td>T 10/18</td>
<td>3.1.2</td>
<td>1 – Transcription</td>
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<tr>
<td>36</td>
<td>F 3/17</td>
<td>3.2.1</td>
<td>1 - Translation</td>
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<tr>
<td>37</td>
<td>M 3/20</td>
<td>3.2.1</td>
<td>1 – Transcription/Translation Activities</td>
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<tr>
<td>38</td>
<td>T 3/21</td>
<td>3.1.2</td>
<td>1 – Protein Synthesis</td>
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<td>39</td>
<td>W 3/22</td>
<td>3.1.3</td>
<td>1 – Gene Linkage &amp; Mutations</td>
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<td>40</td>
<td>TH 10/23</td>
<td>3.2.2</td>
<td>1 – Gregor Mendel</td>
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<td></td>
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<td>2 – Punnett Squares (Regular)</td>
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<tr>
<td>41</td>
<td>F 3/24</td>
<td>3.2.2</td>
<td>1 – Punnett Squares (Non-Mendelian)</td>
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<tr>
<td>42</td>
<td>M 3/27</td>
<td>3.2.2</td>
<td>1 – Punnett Squares (Non-Mendelian) – Multiple</td>
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<td>Week</td>
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<td>Lessons</td>
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<tr>
<td>43</td>
<td>3/28</td>
<td>T 3.2.2, Alleles (1 – Sex-Linked Traits)</td>
<td></td>
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<tr>
<td>44</td>
<td>3/29</td>
<td>W 3.2.2, Alleles (1 – Pedigrees)</td>
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<td>45</td>
<td>3/30</td>
<td>TH 3.2.2, Alleles (1 – Pedigrees)</td>
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<tr>
<td>46</td>
<td>3/31</td>
<td>F 3.2.2, 3.2.3, Pedigrees</td>
<td></td>
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<tr>
<td>47</td>
<td>4/03</td>
<td>M 3.3.3, Human Genome Project (1 – Human Genome Project)</td>
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<tr>
<td>48</td>
<td>4/04</td>
<td>T 3.3.3, Recombinant DNA (1 - Recombinant DNA)</td>
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<tr>
<td>49</td>
<td>5/05</td>
<td>W 3.3.1, Gel Electrophoresis (Lab to be completed if time allows) (1 – Gel Electrophoresis)</td>
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<tr>
<td>50</td>
<td>4/06</td>
<td>TH 3.4.2, Natural Selection (1 – Natural Selection)</td>
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<td>51</td>
<td>4/06</td>
<td>F 3.4.2, Charles Darwin &amp; other contributing scientists (2 – Charles Darwin &amp; other contributing scientists)</td>
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<tr>
<td>52</td>
<td>4/17</td>
<td>M 3.4.1, Evidence for Evolution (1 – Evidence for Evolution)</td>
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</tr>
</tbody>
</table>

**Benchmark**

Benchmark B
April 3-7
April 7th is half a day!

**Benchmark Review**
All Materials Since Day 1
Teachers Decide Which Day(s)
Benchmark will be based on standards taught since the
<table>
<thead>
<tr>
<th>#</th>
<th>Day</th>
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<th>Section</th>
<th>Topics</th>
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<tbody>
<tr>
<td>53</td>
<td>T</td>
<td>4/18</td>
<td>3.4.3</td>
<td>About 35-38 items will be on the Benchmark, and should take one class period to complete it.</td>
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</tbody>
</table>
| 54  | W   | 4/19  | 3.4.3   | 1 – Antibiotic Resistance  
2 – Pesticide Resistance  
3- Bacteria Viruses |
| 55  | TH  | 4/20  | 2.1.2   | 1 – Evolution Quiz  
2 – Elements of Behavior  
3 – Innate & Learned Behaviors |
| 56  | F   | 4/21  | 3.5.1   | 1 - Classification Systems (2 days)  
Prokaryotic  
Euukaryotic  
2 – Dichotomous Keys  
3 – Cladograms |
| 57  | M   | 4/24  | 1.1.3   | 1 – Gymnosperm & Angiosperm Reproduction (Plants Vocab) |
| 58  | T   | 4/25  | Goal 3  | 1 – Review |
| 59  | W   | 4/26  | Goal 3  | Evolution  
Evolution and Genetics Test Day |
| 60  | T   | 4/27  | 2.1.1   | 1 – Abiotic vs. Biotic  
2 – Ecological Organization |
| 61  | W   | 4/28  | 2.1.1   | 1 – Food Chains / Food Webs  
2 – Ecological Pyramids |
| 62  | M   | 5/01  | 2.1.1   | 1 – Ecological Pyramids  
2 - Cycling of Matter |
<p>| 63  | T   | 5/02  | 2.1.1   | 1 – Cycling of Matter Activities |</p>
<table>
<thead>
<tr>
<th>Day</th>
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<th>Notes</th>
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<tr>
<td>64</td>
<td>W 5/03</td>
<td>2.1.3</td>
<td>Ecology</td>
<td>1 – Succession</td>
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</table>
| 65  | TH 15/04 | 2.1.3  |                                            | 1 – Symbiosis  
2 – Predator/Prey Relationships |
| 66  | F 5/05 | 2.1.4  |                                            | 1 – Ecology Quiz 1  
2 – Population Growth |
| 67  | M 5/08 | 2.2.1  |                                            | 1 – Population Growth  
2 – Limits to Growth |
| 68  | T 5/09 | 2.2.1  |                                            | 1 – Human Population Growth  
2 – Human Environmental Impacts |
| 69  | W 5/10 | 2.2.1  |                                            | 1 – Human Environmental Impacts  
2 – Ecology Quiz |
|     |        |        | Mock Exams May 15-19                       | Mock Exam Review  
All Materials Since Day 1  
Teachers Decide Which Day(s)  
**Mock Exam will be the Biology Released Test that was also our Pretest. You will need two class periods to complete the mock examination.** |
| 70  | TH 5/11 | Goal 2 |                                            | 1 – Review Day |
| 71  | F 5/12 | Goal 2 |                                            | 1 – Ecology Test Day |
| 72  | M 5/15 | Goal 2 |                                            | 1 – Over the Hedge: Wrap up of Ecology |
| 73  | T 5/16 |        |                                            | 1 – Molecular Biology |
| 74  | W 5/17 |        |                                            | 1 – Structure and Function of Cells |

EOC REVIEW WEEK
## Important Vocabulary By Unit

<table>
<thead>
<tr>
<th>Ecology</th>
<th>Structure and Function</th>
<th>Molecular Biology</th>
<th>Genetics/Evolution</th>
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<tbody>
<tr>
<td>Abiotic</td>
<td>Cell Membrane</td>
<td>Carbohydrate</td>
<td>Gel Electrophoresis</td>
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<tr>
<td>Biotic</td>
<td>Cell Wall</td>
<td>Protein</td>
<td>DNA Fingerprinting</td>
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JUNE 5 is the proposed start date...
Weight Distributions for Biology End of Course Examination

<table>
<thead>
<tr>
<th>Unifying Concept</th>
<th>Biology</th>
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<tbody>
<tr>
<td>Structure and Function of Living Organisms (2)</td>
<td>18-22%</td>
</tr>
<tr>
<td>Ecosystems (2)</td>
<td>18-22%</td>
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<tr>
<td>Evolution and Genetics (1)</td>
<td>43-53%</td>
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<tr>
<td>Molecular Biology (4)</td>
<td>15-19%</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
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</table>

This is the link for the unpacking document for Biology
How to Find Released test Items in Schoolnet for Biology
How to Find a Passage in Schoolnet based on the Biology Standards. Remember that you go to my.ncedcloud.org and type in your username and password. From the homepage you then click on the school building icon that takes you to schoolnet. Once in schoolnet follow the directions below..

1. Hover at the Assessment Admin link once you are in schoolnet
2. Click find an item, passage, or rubric
3. Click Advance search
4. Click Standard Look up
5. Select Standard Document- Drop down arrow that allows you to select your subject
6. Select grade level
7. Select your subject by clicking on the + sign. You can also select specific standards
8. Once you click the plus (+) sign the subject that you have chosen will automatically drop down to specific standards for your subject
9. You can select specific standards by checking the box beside each standards
10. If you click the + sign beside specific standards you will be taken to the sub topic for each standard.
11. After you decide which standards you want click the box beside each standard.
12. Then click add
13. You are now to scroll down to the properties section and type ncdpi_classroom for the publisher in the passage properties section.
14. Then you would click search items at the bottom of the page. Always search items and not passages...

Molecular Biology: 15-19% of End of Course Exam
Standards 4.1.1, 4.1.2, 4.2.1, and 4.2.2
Bio.4.1 Understand how biological molecules are essential to the survival of living organisms.
Bio.4.1.1 Compare the structures and functions of the major biological molecules (carbohydrates, proteins, lipids, and nucleic acids) as related to the survival of living organisms.
Bio.4.1.2 Summarize the relationship among DNA, proteins and amino acids in carrying out the work of cells and how this is similar in all organisms.
Note: Students are not expected to memorize the names and/or structures or characteristics of the 20 amino acids. The focus should be on the fact that side chains are what make each of the amino acids different and determine how they bond and fold in proteins. (Relate to Bio.3.1.2)

Bio.4.1.3 Explain how enzymes act as catalysts for biological reactions.
Note: Students should understand that enzymes are necessary for all biochemical reactions and have a general understanding of how enzymes work in terms of the connection between shape and function.

Sample Questions for Molecular Biology Unit
1. Which process allows an amoeba to bring food inside to maintain cellular homeostasis?
A. locomotion  
B. phagocytosis  
C. organogenesis  
D. photosynthesis

2. A disease resulted in mitochondria being unable to function properly. How could this most directly affect an organism’s ability to maintain homeostasis?
A. Potassium inside nerve cells could not be kept at higher levels than the surrounding body fluids.  
B. Osmosis could not occur resulting in the inability of water to move in and out of the cells.  
C. Gases such as carbon dioxide and oxygen could not diffuse in and out of the cells.  
D. Cells would be unable to use membrane proteins to carry out facilitated diffusion.

3. What determines the order of amino acids in a protein?
A. the tRNA anti-codons  
B. the function of the protein  
C. the sequence of nucleotides in the DNA  
D. the percentage of each nucleotide in the gene

4. For all cells where protein synthesis occurs, which base pair is found only in mRNA?
A. uracil : adenine  
B. adenine : thymine  
C. cytosine : guanine  
D. cytosine : uracil

5. What type of organic molecules are enzymes?
A. carbohydrates  
B. lipids  
C. nucleic acids  
D. proteins

6. Why may snakes eat only once a week?
A. They have small digestive tracts.  
B. They lack adequate available prey.  
C. They require large amounts of food.  
D. They require much less energy to maintain homeostasis.

7. This is an mRNA codon chart. An organism has the DNA sequence TAC TGC CCA ATA.
Why is it possible for a different organism with the DNA sequence TAC TGT CCG ATG to produce the same protein?
A. because the DNA sequence for both organisms is the same length
B. because more than one codon codes for the same amino acid sequence
C. because the first base in each codon determines the amino acid sequence
D. because the mRNA sequence for both organisms contains the same bases

8. Cells in your intestinal lining have a higher concentration of sodium than your food. How do they acquire the additional sodium they need?
A. osmosis
B. diffusion
C. active transport
D. passive transport

9. Which process allows an amoeba to bring food inside to maintain cellular homeostasis?
A. locomotion
B. phagocytosis
C. organogenesis
D. photosynthesis

10. A disease resulted in mitochondria being unable to function properly. How could this most directly affect an organism’s ability to maintain homeostasis?
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D. the percentage of each nucleotide in the gene

12. For all cells where protein synthesis occurs, which base pair is found only in mRNA?
   A. uracil : adenine
   B. adenine : thymine
   C. cytosine : guanine
   D. cytosine : uracil

13. Which most directly affects the sequence of amino acids in a protein?
   A. the DNA in the nucleus of the cell
   B. the amino acids found in the cytoplasm
   C. the type of cell in which the protein is made
   D. the region of the cell in which the protein is made

14. Which is affected by the order of amino acids?
   A. The type of proteins produced.
   B. The type of nucleotides produced.
   C. The type of peptide bonds produced.
   D. The type of phosphate group produced.

15. Which statement is untrue regarding aerobic cellular respiration and lactic acid fermentation?
   A. Only aerobic cellular respiration requires O.
   B. Only lactic acid fermentation can cause muscle cramps.
   C. Both aerobic cellular respiration and lactic acid fermentation break down glucose.
   D. Both aerobic cellular respiration and lactic acid fermentation produce CO waste.

16. Why are proteins important to the survival of animals?
   A. Proteins provide the body with energy.
   B. Proteins provide energy storage for cells.
   C. Proteins provide genetic information to cells.
   D. Proteins provide structural functions for the body

17. Why are lipids important for the survival of animals?
   A. Lipids carry genetic information in the form of RNA.
   B. Lipids store energy and vitamins that animals need.
   C. Lipids provide animals with quick energy for routine tasks.
   D. Lipids contain amino acids necessary for protein synthesis.

18. How do DNA and proteins work together to affect the metabolism of energy in cells?
   A. Energy is metabolized in cells after proteins transcribe DNA to undergo replication and to release energy into cells.
B. Proteins, like enzymes, metabolize energy during cellular respiration resulting in DNA synthesizing additional DNA in cells.
C. DNA supplies the instructions for amino acids to form specific proteins like enzymes, which speed up the metabolism in cells.
D. Proteins create energy to carry DNA out of the cell nucleus where it is transported to the ribosome for transcription into amino acids.

19. If an animal has a limited supply of O₂, which process would be most affected?
A. alcoholic fermentation
B. lactic acid fermentation
C. aerobic cellular respiration
D. anaerobic cellular respiration

20. A lack of availability of which substance would limit the rate of photosynthesis in aquatic plants in an aquatic environment?
A. water
B. oxygen
C. simple sugars
D. carbon dioxide

Structure and Function of Cells: 18-22% of the End of Course Examination

Standards 1.1.1, 1.1.2, 1.1.3, 1.2.1, 1.2.2, and 1.2.3

Bio.1.1 Understand the relationship between the structures and functions of cells and their organelles.

Bio.1.1.1 Summarize the structure and function of organelles in eukaryotic cells (including the nucleus, plasma membrane, cell wall, mitochondria, vacuoles, chloroplasts, and ribosomes) and ways that these organelles interact with each other to perform the function of the cell.
Bio.1.1.2 Compare prokaryotic and eukaryotic cells in terms of their general structures (plasma membrane and genetic material) and degree of complexity.
Bio.1.1.3 Explain how instructions in DNA lead to cell differentiation and result in cells specialized to perform specific functions in multicellular organisms.

Bio.1.2 Analyze the cell as a living system.

Bio.1.2.1 Explain how homeostasis is maintained in a cell and within an organism in various environments (including temperature and pH).
Bio.1.2.2 Analyze how cells grow and reproduce in terms of interphase, mitosis and cytokinesis.
Bio.1.2.3 Explain how specific cell adaptations help cells survive in particular environments (focus on unicellular organisms).

Structure and Function of Cells Sample Questions

1. How does DNA code for proteins in a cell?
A. by creating a new double helix structure
B. by using its phosphate and sugar molecules  
C. by adding more hydrogen bonds to its structure  
D. by arranging certain nitrogen bases of the cell in a particular order

2. How are prokaryotic and eukaryotic cells similar?  
A. Both contain a nucleus.  
B. Both contain ribosomes.  
C. Both contain membrane-bound organelles.  
D. Both contain cell walls.

3. Which best explains why muscle cells are different from blood cells?  
A. A mutation occurs during the development of muscle cells but not in blood cells.  
B. Different genes are activated in muscle cells than in blood cells.  
C. Muscles cells experience different environmental influences than blood cells.  
D. Muscle cells are produced by the brain, but blood cells are produced by the heart.

4. What is the result when a single cell reproduces by mitosis?  
A. two cells with genetic material identical to the parent cell  
B. two cells with half the genetic material of the parent cell  
C. four cells with half the genetic material of the parent cell  
D. four cells with genetic material identical to the parent cell

5. What process best explains how a nerve cell and a muscle cell can both develop from the same fertilized egg?  
A. differentiation  
B. natural selection  
C. selective breeding  
D. genetic engineering

6. What will most likely be the result if all of the mitochondria are removed from a plant cell?  
A. It will be unable to carry out respiration.  
B. It will lose water through osmosis.  
C. It will break down the ribosomes in the cell.  
D. It will be unable to photosynthesize.

7. Before mitosis begins, which happens before the nucleus starts dividing?  
A. The cytoplasm separates.  
B. The DNA replicates.
C. The sister chromatids separate.
D. The homologous chromosomes cross over.

8. Which cell is undifferentiated?
A. stem cell
B. sperm cell
C. kidney cell
D. red blood cell

9. In a laboratory setting, embryonic stem cells can differentiate into which types of cells?
A. any type of eukaryotic cell
B. any type of prokaryotic cell
C. any cell from the same organism
D. any cell from a different organism

10. Which would most likely hinder the ability of a paramecium to survive in its environment?
A. absorbing chemicals that impact contractile vacuoles
B. dividing into two identical daughter cells
C. using ATP to aid in movement of the cilia
D. replicating mitochondria within the cell

11. Which best determines whether a molecule crosses a cell membrane?
A. shape
B. function
C. structure and cell type
D. polarity and concentration

12. Which form of transport permits water to cross a semi-permeable membrane from areas of high concentration to low concentration?
A. osmosis
B. diffusion
C. ionization
D. active transport

13. Which example represents chemotaxis?
A. An amoeba engulfs a food particle.
B. A paramecium removes excess water.
C. A euglena moves from a dark area towards a light source.
D. A bacterium swims towards higher concentrations of glucose.

14. Which action exemplifies phototaxis?
A. An amoeba engulfs a food particle.
B. A paramecium removes excess water.
C. A euglena swims towards a source of light.
D. A bacterium moves towards higher concentrations of glucose.

15. Which structure found in Euglena serves the same function as the cilia of a Paramecium?
A. a flagella for movement
B. an eyespot for movement
C. a pseudopod for water removal
D. a contractile vacuole for water removal

16. Why is it important for dogs and cats to pant when they become hot?
A. to prevent disease
B. to release excess water
C. to increase cellular metabolism
D. to maintain proper internal temperatures

17. Which explains how buffers help cells to maintain homeostasis?
A. provide hydration for the cell
B. help keep the pH within a cell constant
C. contain enzymes to speed up chemical reactions
D. supply nutrients for growth and cellular processes

18. In which phase of the cell cycle is DNA replicated?
A. gap 1
B. gap 2
C. mitosis
D. synthesis

19. Which type of cell will result from a DNA code for cells specialized in transmitting electrical signals?
A. fat cell
B. nerve cell
C. sperm cell
D. red blood cell

20. Which is a practical purpose for classification?
A. to facilitate the identification of unknown species
B. to explain the origin of unicellular organisms
C. to identify certain hereditary characteristics
D. to know the evolutionary history of species
Bio.3.1 Explain how traits are determined by the structure and function of DNA.
Bio.3.1.1 Explain the double-stranded, complementary nature of DNA as related to its function in the cell.
Bio.3.1.2 Explain how DNA and RNA code for proteins and determine traits.
Bio.3.1.3 Explain how mutations in DNA that result from interactions with the environment (i.e. radiation and chemicals) or new combinations in existing genes lead to changes in function and phenotype.

Bio.3.2 Understand how the environment, and/or the interaction of alleles, influences the expression of genetic traits.
Bio.3.2.1 Explain the role of meiosis in sexual reproduction and genetic variation.
Bio.3.2.2 Predict offspring ratios based on a variety of inheritance patterns (including dominance, co-dominance, incomplete dominance, multiple alleles, and sex-linked traits).
Bio.3.2.3 Explain how the environment can influence the expression of genetic traits.

Bio.3.3 Understand the application of DNA technology.
Bio.3.3.1 Interpret how DNA is used for comparison and identification of organisms. Bio.3.3.2 Summarize how transgenic organisms are engineered to benefit society.
Bio.3.3.3 Evaluate some of the ethical issues surrounding the use of DNA technology (including cloning, genetically modified organisms, stem cell research, and Human Genome Project).

Bio.3.4 Explain the theory of evolution by natural selection as a mechanism for how species change over time.
Bio.3.4.1 Explain how fossil, biochemical, and anatomical evidence support the theory of evolution.
Bio.3.4.2 Explain how natural selection influences the changes in species over time.
Bio.3.4.3 Explain how various disease agents (bacteria, viruses, chemicals) can influence natural selection.

Bio.3.5 Analyze how classification systems are developed upon speciation.
Bio.3.5.1 Explain the historical development and changing nature of classification systems.
Bio.3.5.2 Analyze the classification of organisms according to their evolutionary relationships (including dichotomous keys and phylogenetic trees).

Sample Questions