1. Fill in the blank.  
Segments of DNA are called _________.
A. mutations  
B. RNA  
C. traits  
D. genes

2. Fill in the blank.  
Being able to read is _______________.
A. an inherited trait  
B. something all animals can learn  
C. a learned trait  
D. something you can only do at

3. Which chromosome combination in humans will produce a female?  
A. YY  
B. XY  
C. YX  
D. XX

4. Which of the following is true about asexual reproduction?  
A. Reproduced cells are identical to the original (parent) cell.  
B. It requires a sperm cell.  
C. There is a great deal of variation in offspring.  
D. It can only happen in plants.

5. Which of the following shows a genotype that is dominant?  
A. Aa  
B. A  
C. AA  
D. a

6. Offspring produced by sexual reproduction  
A. are exactly like one of the parents  
B. show no variation in characteristics  
C. form from one sex cell of one organism  
D. show variation in characteristics

7. To what kingdom do humans belong?  
A. Primate  
B. Monera  
C. Animal  
D. Protista

8. Fill in the missing classification:  
KINGDOM  
PHYLUM  
CLASS  
ORDER  
??  
GENUS  
SPECIES  
A. Organism  
B. Family  
C. Protista  
D. Taxa

9. Use the following information to determine the genetic makeup of a tall plant that is pure dominant.  
T = tall  
t = short  
A. tt  
B. Tt  
C. TT

10. In which kingdom would you find unicellular organisms that do NOT have nuclei?  
A. Monera  
B. Plant  
C. Protista  
D. Fungi
11. If an organism is multicellular and makes its own food, it must be a member of the ______________ kingdom.

<p>| | | | |</p>
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<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>A.</td>
<td>Plant</td>
<td>B.</td>
<td>Protista</td>
</tr>
<tr>
<td>C.</td>
<td>Monera</td>
<td>D.</td>
<td>Animal</td>
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12. In human genetics, 23 is ________.

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<thead>
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<tbody>
<tr>
<td>A.</td>
<td>the number of genes in human cells</td>
<td>B.</td>
<td>the number of pairs of chromosomes in human cells</td>
</tr>
<tr>
<td>C.</td>
<td>the chromosome number that causes a child to be born with Down's syndrome</td>
<td>D.</td>
<td>the number of genes that are on a &quot;piece of DNA&quot;</td>
</tr>
</tbody>
</table>

13. Use the following information to determine the genetic makeup of a tall plant that is heterozygous.

<p>| | | | |</p>
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<thead>
<tr>
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<tbody>
<tr>
<td>T = tall</td>
<td>t = short</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A.</td>
<td>tt</td>
<td>B.</td>
<td>Tt</td>
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14. Meiosis is the process that produces

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<thead>
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<tbody>
<tr>
<td>A.</td>
<td>gametes</td>
<td>B.</td>
<td>identical cells</td>
</tr>
<tr>
<td>C.</td>
<td>clones</td>
<td>D.</td>
<td>DNA only</td>
</tr>
</tbody>
</table>

15. Which of the following is determined solely by heredity?

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<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>A.</td>
<td>eye color</td>
<td>B.</td>
<td>artistic ability</td>
</tr>
<tr>
<td>C.</td>
<td>weight</td>
<td>D.</td>
<td>intelligence</td>
</tr>
</tbody>
</table>

16. DNA stand for ________________.

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<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>A.</td>
<td>deutronuclear acetone</td>
<td>B.</td>
<td>denatured alcohol</td>
</tr>
<tr>
<td>C.</td>
<td>deoxyribonucleic acid</td>
<td>D.</td>
<td>dinitrogen aldehyde</td>
</tr>
</tbody>
</table>

17. Which of the following is best associated with asexual reproduction?

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<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>A.</td>
<td>spore</td>
<td>B.</td>
<td>sperm</td>
</tr>
<tr>
<td>C.</td>
<td>egg</td>
<td>D.</td>
<td>seed</td>
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</table>

18. Name the part labeled #1.

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<thead>
<tr>
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<tbody>
<tr>
<td>A.</td>
<td>chloroplast</td>
<td>B.</td>
</tr>
<tr>
<td>C.</td>
<td>cell wall</td>
<td>D.</td>
</tr>
</tbody>
</table>

19. Plant and animal cells have some similarities as well as differences. What is one thing that plant and animal cells have in common?

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</thead>
<tbody>
<tr>
<td>A.</td>
<td>cell wall</td>
<td>B.</td>
<td>chlorophyll</td>
</tr>
<tr>
<td>C.</td>
<td>nucleus</td>
<td>D.</td>
<td>chloroplasts</td>
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20. The cell membrane is referred to as __________ because it allows some materials to pass through, but not all.

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<tbody>
<tr>
<td>A.</td>
<td>porous</td>
<td>B.</td>
<td>selectively permeable</td>
</tr>
<tr>
<td>C.</td>
<td>hypotonic</td>
<td>D.</td>
<td>actively diffusive</td>
</tr>
<tr>
<td>Question</td>
<td>Options</td>
<td></td>
<td></td>
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<tr>
<td>----------</td>
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<td></td>
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</tbody>
</table>
| 21. What is the only organelle found inside of the nuclear membrane? | A. cytoplasm  
B. mitochondrion  
C. nucleolus  
D. lysosome |
| 22. What is the function of ribosomes? | A. to transport material in and out of the nucleus  
B. to digest materials inside the cytoplasm  
C. to protect the endoplasmic reticulum  
D. to make proteins |
| 23. Which one of these statements is true about all cells? | A. They are all exactly alike.  
B. They are the basic unit of life.  
C. They do not need energy.  
D. They cannot move on their own. |
| 24. What is the main reason for cellular respiration? | A. to break down carbon dioxide  
B. to produce glucose  
C. to breakdown glucose  
D. to produce oxygen |
| 25. What is mitosis? | A. the process in which two cells fuse to form a zygote  
B. the sexual process in which gametes are produced  
C. the asexual process in which cells grow and are repaired  
D. the spore germination process |
| 26. In mitosis, what occurs before prophase begins? | A. The chromosomes move to the outside edges of the cell membrane.  
B. Spindle fibers appear.  
C. Two cells fuse together.  
D. DNA replicates. |
| 27. A green plant can make its own food. What does a green plant need in order to make food? | A. wind  
B. oxygen  
C. light  
D. strong roots |
| 28. Which of the following is NOT a product of the light reactions of photosynthesis? | A. glucose  
B. NADPH  
C. oxygen  
D. ATP |
| 29. An ________ solution occurs when the concentration of the materials in the solution outside the cell is equal to the concentration of the materials in the solution inside the cell. | A. hypotonic  
B. hypertonic  
C. isotonic  
D. osmotic |
Answers to Coley

1. A
2. C
3. D
4. A
5. C
6. D
7. C
8. B
9. C
10. A
11. A
12. B
13. B
14. A
15. A
16. C
17. A
18. C
19. B
20. B
21. C
22. D
23. B
24. C
25. C
26. D
27. C
28. A
29. C