Human Body Disorder Project (*CA)

Background information

• You need to research more information on sickle cell disease, specifically beta-thalassemia.
• Use the following websites:
  o http://www.babysfirsttest.org/newborn-screening/conditions/s-beta-thalassemia

1. What are the characteristics of sickle cell disease?

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2. What is anemia?

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3. List symptoms of sickle cell anemia:

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4. Name the body parts (including organs) that are affected by sickle cell anemia

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<table>
<thead>
<tr>
<th>System</th>
<th>Function</th>
<th>Organs Involved</th>
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<tbody>
<tr>
<td>Skeletal System</td>
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<tr>
<td>Muscular System</td>
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<td>Nervous System</td>
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<td>Digestive System</td>
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<tr>
<td>Respiratory System</td>
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<tr>
<td>Circulatory System</td>
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</tbody>
</table>
In this project, you will be comparing two body systems. One of the body systems will be the **circulatory system** the other will be **assigned to you**.

<table>
<thead>
<tr>
<th>Required Information- each part should have pictures too!</th>
<th>Notes</th>
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</thead>
<tbody>
<tr>
<td><strong>Side 1:</strong> Name/ Class Hour/ Title</td>
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<tr>
<td><strong>Side 2:</strong> Briefly describe the function of the <strong>circulatory system</strong> and the organs involved in the system (color code them)</td>
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<td><strong>Side 3:</strong> Briefly describe the function of the other system you were assigned and the organs involved in the system (color code them)</td>
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<td><strong>Side 4:</strong> List the <strong>signs and symptoms</strong> of sickle cell anemia.</td>
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<td><strong>Side 5:</strong> Explain how the shape of sickle cell can cause <strong>blood clots</strong>.</td>
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<td><strong>Side 6:</strong> Show <strong>images</strong> of normal cells vs. sickle cells. (LABEL THEM!)</td>
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</table>
**Side 7:** Define *homeostasis*

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**Side 8:** Explain how the circulatory system maintains homeostasis

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**Side 9:** Explain how the other system you were assigned maintains homeostasis

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**Side 10:** Provide evidence of how these two systems *work together* to maintain homeostasis.

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**Side 11:** Compare and contrast how the system you were assigned functions with normal cells *compared* to when the person has sickle cell anemia.

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**Side 12:** Describe how *specific organs* in the system you were assigned are affected by sickle cell.