CELL CYCLE webquest

WebQuest Description: This Webquest will allow the users to know the importance of Cell division, understand the details of the different stages of The Cell Cycle - an essential process for growth and regeneration.

Grade Level: 9-12
Curriculum: Science
Keywords: Cell cycle - Cell division - Mitosis - Meiosis - Chromosomes - Chromatid - Spindle fibers
Published On: 2019-06-23 21:04:49
WebQuest URL: http://zunal.com/webquest.php?w=411528

Introduction

Imagine what would have happened if our injuries never heal? If our wounds stay forever? If our organs are not rejuvenating continuously? Imagine you manage to enter inside a Wound and see what happens inside a Cell? Do you know how the tissue is repaired after an injury? And how it is replaced after it has been damaged seriously? In this WebQuest, we will discover together how and what happens in details,

Tasks

At the end of this WebQuest, you will have a clear vision about the importance of Cell Cycle in any organism, you will be able to state the different steps and phases of cell Division in details, you will be able to state the difference between cell division of a somatic cell and that of a germ cell, in addition to identifying the importance of Cell Division in cell's life. The importance of studying the Cell Cycle lies in the roles it plays in the human body like Reproduction, Growth, Regeneration and Repairing. Working in pairs, you need to represent all the data and details collected regarding all the steps of Cell cycle in any form of Chart, Table, Graph, Images or Report which you will be presenting in front of your class. Outstanding presentations will be enrolled in the science fair happening next month, which will give you the chance to compete for Scientific award for this year. Work hard, and best of luck!!!!

Process

PHASE 1: To define something as living or not, there are two categories taken into consideration: GROWTH and REPRODUCTION. Both of these categories are accomplished by cell division. In this phase, you are supposed to have a close look at the information provided through the links below. As you are working on pairs, let each of you choose different links than the other, read, understand well, and share the information with the other. You might take notes, or summarize the important information for later use. Focus on the importance of Cell division at the level of the cell itself, different body organs and the human body in total. Study the different organelles that play a role in the Cell division. Go thoroughly through the Cell Cycle steps (Growth and Cell division) in terms of changes occurring and the role of each. When you go through the details of cell division you will encounter two types of cells: somatic and germ cells. Each one of the pair will choose a type and collect the data needed, then share it with the other.

PHASE 2: As you have enough information now, you need to analyze them in order to explain why injuries don't last forever most of the time. And Why is Cell Division crucial in our life? Can you imagine life without Cell Division? This needs a smart answer!!!!

PHASE 3: This is where all your hard work will come to life!!! Using your imagination, you have the freedom to choose any way (as mentioned above) to express and state the different information that you have collected. Remember to focus on the Importance of Cell cycle, details of all the steps, and the comparison between the somatic and germ cell division. You can use some animations while presenting as well, anything that grasps the attention of your colleagues, and makes the idea easily accessible is welcomed.

Evaluation

Every little effort you do in this WebQuest will help you raise your grade!!! Grades will be distributed as follows: 10% on the font and neatness of your work, 10% on the final data presentation method, 10% on your performance while presenting, 10% on your reflection, 30% on the information collected regarding the steps and details of the cell cycle, 10% on the information collected on somatic and germ cell division, 20% on your own analysis regarding the importance of cell cycle and its implementations in the medical field.

<table>
<thead>
<tr>
<th>Category and Score</th>
<th>EXCELLANT</th>
<th>VERY GOOD</th>
<th>GOOD</th>
<th>BAD</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analysis</td>
<td>Strong, evidence based, innovative</td>
<td>Strong but not evidence based</td>
<td>Weak, but evidence based</td>
<td>Weak</td>
<td></td>
</tr>
<tr>
<td>Data collected</td>
<td>Sufficient data for all questions</td>
<td>Sufficient data but not for all questions</td>
<td>Not sufficient data</td>
<td>Data not linked to the field of study</td>
<td></td>
</tr>
</tbody>
</table>
How do you think is the medical field benefiting from the fact of Cell Cycle on our bodies?? All answers are welcomed, I need you to search in different webs, and come out of conclusions and visions of your own. No answer is a silly answer !!!!

## Conclusion

How do you think is the medical field benefiting from the fact of Cell Cycle on our bodies?? All answers are welcomed, I need you to search in different webs, and come out of conclusions and visions of your own. No answer is a silly answer !!!!

## Teacher Page

... Standards ...

## Credits


## Other ...

<table>
<thead>
<tr>
<th>Category and Score</th>
<th>EXCELLANT</th>
<th>VERY GOOD</th>
<th>GOOD</th>
<th>BAD</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance during presentation &amp; neatness of work</td>
<td>Excellent performance and work presentation</td>
<td>Information not well organized, but good performance in class</td>
<td>Well organized data but not good performance</td>
<td>Information not well organized and not well presented in class</td>
<td></td>
</tr>
<tr>
<td>Reflection and extended thoughts</td>
<td>Ideas well reflected, and innovative extended thoughts</td>
<td>very good reflection, with some extended thoughts</td>
<td>reflection not good, but good extended thoughts</td>
<td>Reflection not good, and no extended thoughts</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Total Score</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Performance during presentation &amp; neatness of work</th>
<th>EXCELLANT</th>
<th>VERY GOOD</th>
<th>GOOD</th>
<th>BAD</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reflection and extended thoughts</td>
<td>Ideas well reflected, and innovative extended thoughts</td>
<td>very good reflection, with some extended thoughts</td>
<td>reflection not good, but good extended thoughts</td>
<td>Reflection not good, and no extended thoughts</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Total Score</td>
</tr>
</tbody>
</table>

...