Today you will be taking on the responsibility of controlling or regulating the Cell Cycle. This responsibility is not to be taken lightly. You are responsible for preventing any mutations or errors from being passed on to the next generation of cells.

* Click on the link - <http://www.cancerandthecellcycle.blogspot.com/> . Under the heading cell cycle links click on the link: “Do you have what it takes to regulate the cell cycle?”
* Click the play button and when the page is finished loading click enter. Read through the activity and choose your options wisely…the fate of the cell rests in your hands…

**Helpful Hint**: It will help to have your information about the events of the cell cycle out. Also use the dial at the top left to help when deciding what step to proceed to next.

***Answer the questions below as you move through the game.***

1. On average, how many cells are replaced every minute?
2. How do cells know when they need to divide or reproduce?
3. What key molecules control and coordinate the events during cell division?
4. When did the first checkpoint occur and what factors were inspected during the first checkpoint?
5. What happens during the Synthesis (S) phase of Mitosis?
6. When did the second checkpoint occur and what factors were inspected during the second checkpoint?
7. What does the “Inspector” do if there is something wrong?
8. When did the third checkpoint occur and what was inspected?
9. Why is it necessary to strictly control the events of the cell cycle? What could go wrong?
10. Explain the role of CDK and Cyclin in the cell cycle.
11. How would a lack of or damaged CDK and Cyclin affect the cell cycle?