# Cell Cycle Simulation

| **Name:** | |
|---|---|

Go to the cell cycle simulation on Biology Simulations.

**Experimental Question: How do the selected treatments affect the rate of mitosis in an onion root tip?**

***Treatment I:***

Select one of the root treatments available to test (do not choose control, that will automatically be part of your experiment).

| *Treatment I:* | |
|---|---|

Write your hypothesis:

| Hypothesis: | |
|---|---|

**Procedure:**

1. Record the number of cells in interphase and the number of cells dividing for a control sample.
2. Select the treatment you are testing and click “Prepare New Sample.”
3. Record the number of cells in interphase and the number of cells dividing for the experimental sample.

**Data:**

| | **Control** | **Experimental** |
|---|---|---|
| **Interphase** | | |
| **Mitosis** | | |

Make a graph comparing your experimental and control samples.

**Discussion:**

1. Describe your results.

2. Based on your results and research, write an explanation of what is happening to cause the results you observed.

**Conclusion:**

***Treatment II:***

Select another root treatment to test.

| | |
|---|---|
| *Treatment II:* | |

Write your hypothesis:

| | |
|---|---|
| Hypothesis: | |

*Repeat the procedure from Treatment I.*

**Data:**

| | **Control** | **Experimental** |
|---|---|---|
| **Interphase** | | |
| **Mitosis** | | |

Make a graph comparing your experimental and control samples.

**Discussion:**

1. Describe your results.

| |
|---|
| |

2. Based on your results and research, write an explanation of what is happening to cause the results you observed.

**Conclusion:**