***Biology I***

***Virtual Investigation #1***

**Access the Online Textbook**

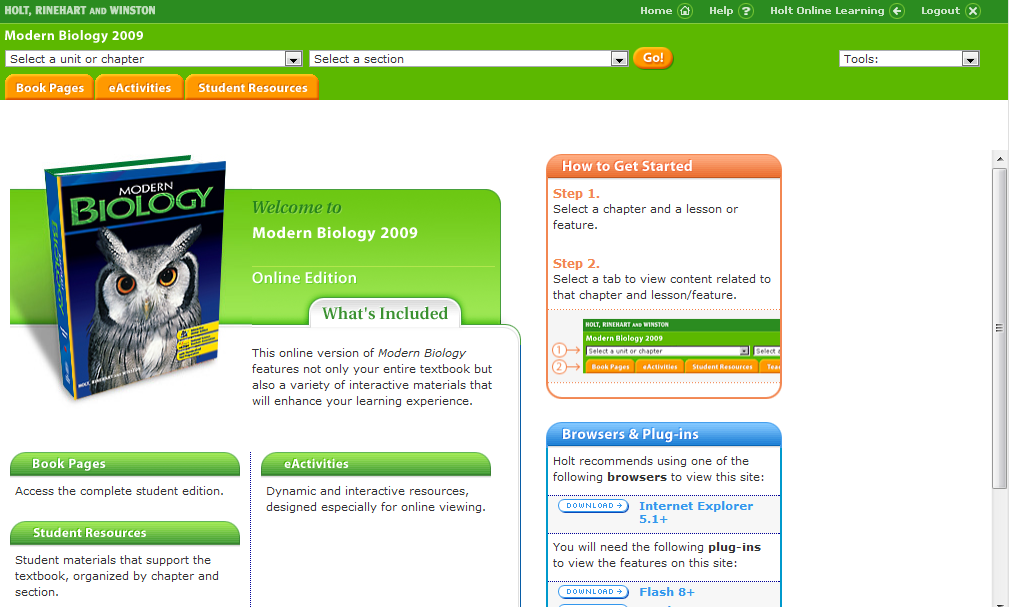
* Holt’s *Modern Biology is accessible by going to the following website and using the log-in information listed.*

*See login and password information below*

Go to: my.hrw.com

Login: astudents90

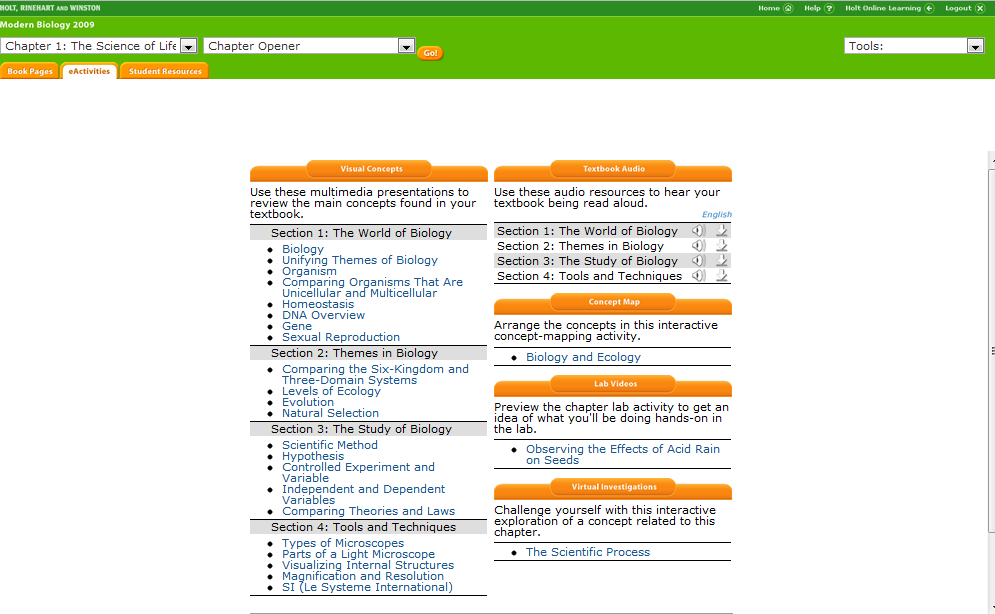
Password: a7k7



From the dropdown menu, select “Chapter 15:

The Science of Life” then click the “eActivities”

tab.

Click on the “Evolution and Natural Selection” link

under the “Virtual Investigations” heading.

**Biology I** Name:

**Evolution & Natural Selection** Name:

**Virtual Investigation** Hour:

Navigate through the virtual investigation for evolution and natural selection on the Holt website. Answer these questions as you proceed. Remember, for full credit you must use complete sentences.

**Part 1 of 9**

What are the four logical steps involved in natural selection?

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**Part 3 of 9**

Draw a diagram of a bacteria cell below:

**Part 7 of 9**

What are antibiotics? What do they do?

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**Part 8 of 9**

Fill in the following charts as you complete the experiment.

|  |  |  |  |
| --- | --- | --- | --- |
| Case 1: | | | |
| Prediction: | | | |
| Start | Non-resistant Bacteria | Resistant Bacteria | Ratio |
| 1 |  |  |  |
| 2 |  |  |  |
| 3 |  |  |  |
| 4 |  |  |  |
| 5 |  |  |  |
| Conclusion: | | | |

|  |  |  |  |
| --- | --- | --- | --- |
| Case 2: | | | |
| Prediction: | | | |
| Start | Non-resistant Bacteria | Resistant Bacteria | Ratio |
| 1 |  |  |  |
| 2 |  |  |  |
| 3 |  |  |  |
| 4 |  |  |  |
| 5 |  |  |  |
| Conclusion: | | | |

|  |  |  |  |
| --- | --- | --- | --- |
| Case 3: | | | |
| Prediction: | | | |
| Start | Non-resistant Bacteria | Resistant Bacteria | Ratio |
| 1 |  |  |  |
| 2 |  |  |  |
| 3 |  |  |  |
| 4 |  |  |  |
| 5 |  |  |  |
| Conclusion: | | | |

|  |  |  |  |
| --- | --- | --- | --- |
| Case 4: | | | |
| Prediction: | | | |
| Start | Non-resistant Bacteria | Resistant Bacteria | Ratio |
| 1 |  |  |  |
| 2 |  |  |  |
| 3 |  |  |  |
| 4 |  |  |  |
| 5 |  |  |  |
| Conclusion: | | | |

**Part 9 of 9**

Describe the most effective method of treatment with antibiotics?

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What is antibiotic resistance? Why do we want to avoid it?

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