Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period \_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**Lesson 3: Testing the Galaxy**

Since visiting the parts of the universe outside our immediate solar system is currently out of the question, astronomers must use various devices to study these far-away objects. In this simulation, you’ll use your results from Lesson 1 along with a variety of tools to identify an unknown astronomical object. Look closely and behold the universe!

**Doing the Science**

1. Start the Galaxy Simulation by clicking on the “Sim” tab.

2. Note and record in Table 1 the 12-character Unknown Object code that appears in the upper right-hand corner of the screen.

3. A given astronomical object appears in the middle of the screen using a view that measures X-rays emitted by the object.

4. Note and record in Table 1 the appearance of the object.

5. Next, select the next view of the same object (ultraviolet) and enter this information in Table 1.

6. Complete a similar process with the remaining three views (visible, infrared, and radio). Make sure to enter your information in Table 1.

7. Select the Spectral Scanner button on the right-hand side of the screen. Note and record in Table 1 the most abundant elements present in the object.

8. Using your information collected in Lesson 1 and your results recorded in Table 1, record in the bottom of Table 1 the name of the Astronomical Object that you think you studied.

Table 1. **Unknown Object Code =**

|  |  |
| --- | --- |
| **View** | **Your Notes** |
| X-Rays |  |
| Ultraviolet |  |
| Visible |  |
| Infrared |  |
| Radio |  |
| Spectral Scanner |  |
|  |  |
| **Astronomical Object You Studied** |  |