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

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**Lesson 1: Using a Database**

A database is an organized collection of data or information stored in some electronic form that provides ease of access to users. The ability to use a simple database can save you time in solving problems and identifying trends. In this simulation, you’ll use a database to gather needed background information for Lesson 2.

**Doing the Science**

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

2. Select the Astronomical Database button in the middle of the screen.

3. Select each link to review information for each general astronomical object.

4. Complete Table 1 below and save this information to help you with Lesson 2.

Table 1.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **General Astronomical Object** | **Example Astronomical Object(s)** | **Most Intense Wavelengths** | **Least Intense Wavelengths** | **Most abundant element(s)** |
| Elliptical galaxy |  |  |  |  |
| Globular cluster |  |  |  |  |
| Open cluster |  |  |  |  |
| Planetary nebula |  |  |  |  |
| Planets - Gas giants |  |  |  |  |
| Planets/Moon - Terrestrial |  |  |  |  |
| Reflection nebula |  |  |  |  |
| Spiral galaxy |  |  |  |  |
| Stars |  |  |  |  |
| Supernova - Remnant |  |  |  |  |

**Do You Understand?**

1. What is a database and how can a database be useful to you?