



## **Teacher's Guide**

### **Exploring the Universe with the Electromagnetic Spectrum**

This activity is the next step for your students to gain an understanding of how astronomy research is done by using all the different bands of electromagnetic radiation. Your students are given one object to thoroughly explore in all bands and they need to develop a research presentation from their findings. In order to provide your students with the necessary background knowledge for this activity, it is highly suggested they complete the Internet investigation below which incorporates information from the Cool Cosmos website. Once students have completed the data tables, have the class share their findings.

At this point the students are ready to take on the task. The only materials required for this task is the Cool Cosmos website and materials required to create a powerpoint or poster presentation. Divide the class into 6 teams and assign each team one object from the list below. Provide them with the grading rubric so they know your expectations for their product. Allow them 2 to 3 class periods to finish this assignment.

Task choices:

Cassiopeia A

M1 – Crab Nebula

M51 – Whirlpool galaxy

M82 – Starburst Galaxy

Antennae Galaxy

Centaurus A Galaxy