Name(s): _____ _____

_____ _____

Date: _____ Course/Section: _____

Grade: _____

Classifying Galaxies

Learning Objectives:

Students will learn about classifying galaxies using Hubble's Tuning Fork and the de Vaucouleur's system

Checklist:

☐ **Complete the pre-lab quiz with your team (if required).**

☐ **Compile a list of resources you expect to use in the lab.**

☐ **Work with your team to complete the lab exercises and activities.**

☐ **Record your results.**

☐ **Share and discuss your results with the rest of the class.**

☐ **Determine if your team's answers are reasonable.**

☐ **Submit an observation request for next week (if required).**

Trivia Quiz

Record your team's answers, and give any reasons/facts you used to help make your guesses.

1.

2.

3.

4.

5.

<u>Part 1: Hubble's Tuning Fork</u>

1. Describe the differences between the fives types of galaxies in Hubble's Tuning Fork.

2. Using the images provided on the lab manual, classify each galaxy using Hubble's Tuning Fork.

1. Chose a galaxy cluster from the list provided on the lab website. Using the images provided, classify the galaxies using the de Vaucouleur system as well as Hubble's Tuning Fork from Part 1.

2. Draw Hubble's Tuning Fork and identify a representative from your galaxy cluster for each of the classifications used by Hubble. You may have some classifications that overlap or you may be missing a morphological type.

3. Based on the types of morphologies of galaxies within each cluster, make some conjectures about the age or interaction history of your group knowing what you know about how galaxies evolve.

4. Describe the differences between the de Vaucouleur system and the simple Hubble Tuning Fork.