Images in Astronomy

Turn in one copy of this lab with each group member's printed name and signature. By signing, you certify that you have actively participated in the exercise and have put forth effort in equal share to your fellow group members.

Printed Name	**Signature**
_____	_____
_____	_____
_____	_____
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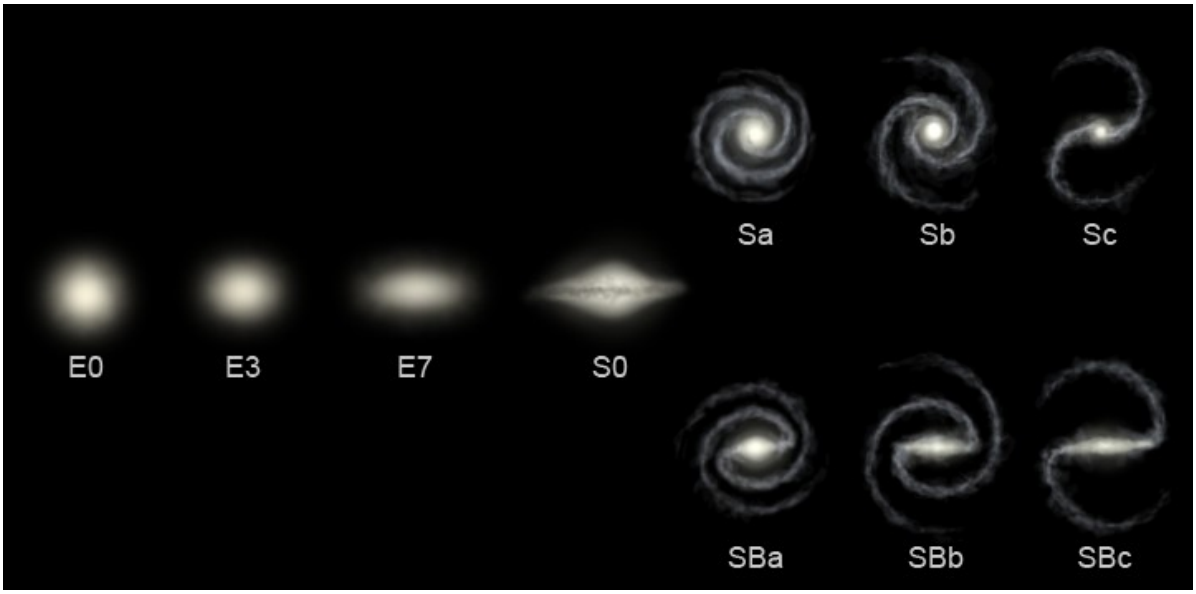
Part 1: Classification Schemas

1. List at least three obvious features of the galaxies that you used in your initial classification: (Use more if you spotted some!)

2. Describe how you ordered the galaxies within each group.

Figure 1: Hubble's Classification



3. Compare your classification to Hubble's classification in Figure 1. How is it different? How is it the same?

4. Recall that very hot stars are blue and cooler stars are redder. Relative to the cool red stars, how long do hot blue stars live?

5. What MUST be present in a galaxy to form new stars?

6. What will stars contain after a few generations, that the first stars did not?

7. Hubble's classification was purely based on morphology. Given your answer to questions 4-6 and what you know about galaxy evolution, provide a physical reason for the Hubble sequence. Use the images on your galaxy cards to explain your idea.

Part 2: Creating and Using Astronomical Images

1. Write a short summary of how you decided that your final image was the BEST image. Include thoughts on each of the above adjustments that you made and how they affected your image.

Now that you have an image, we can use our classification schema from Part 1 to figure out what kind of galaxy it is.

2. Using *your* schema, classify your galaxy. What features make you choose to classify it this way?

3. Using the Hubble Classification schema, what type of galaxy is this? What features suggest this?

4. Comment of the age of your galaxy.

Congratulations! You have successfully participated in *Science!* Your images will be used in future collaborations with other students!