



Introduction to your Mission

The Astrophysics Research Institute of Liverpool John Moores University is working on refining how galaxies are classified. They have gathered a set of galaxy images taken by professional telescopes and need your help!

As a team of amateur astronomers, your task is to classify these galaxies using the Hubble Tuning Fork Classification Scheme.

To push your classification skills further, you will also explore some galaxies that don't fit perfectly into the Hubble system, challenging your classification skills!

Activity: The Hubble Classification Scheme

Step 1: Watch the '[What is a Galaxy](#)' video.

Step 2: Cut out the galaxy cards packs.

Step 3: Start your classification with the first pack (Easy), then move on to the second pack (Medium), and finish with the Extended pack (Hard).

Step 4: Read the information on the back of each card to learn more about the galaxy you are classifying.

Step 5: Use the Hubble Tuning Fork Diagram in page 2 to decide whether the galaxy you are classifying is an elliptical (E), lenticular (S0), normal spiral or barred spiral (S), or whether it does not fit under any of the types – i.e. some galaxies can only be described as irregular (irr).

Step 6: Look at subgroups (0-7 for ellipticals, a-c for the two kinds of spiral).

Step 7: When you have decided, write down the card number, galaxy name, and your classification in the table in page 3. You may want to add notes to explain your decision, or if there is anything odd about the image.

HUBBLE TUNNING FORK DIAGRAM



Sa



Sb



Sc



E0



E3



E5



S0



SBa



SBb



SBc

[illegible]

*If you are classifying all the cards, you may need one of these tables for each pack.