

How The Galaxy Got Its Jets

Part of the GLAST
Pop Up Display



ACTIVE GALAXIES

HOW THE GALAXY GOT ITS PETS

In a time long ago and far away, space was filled with families. These were not families as we know them on Earth. They were giant families of different types of matter with distinct characteristics.

Let's get acquainted with the families.

Young Hydrogen

I am Young Hydrogen. I like to make myself invisible and watch what everyone else in the galaxy is doing.



Helium

Helium is my name. I am a retired physicist. I am neutral and just like to hang out around the galaxy.



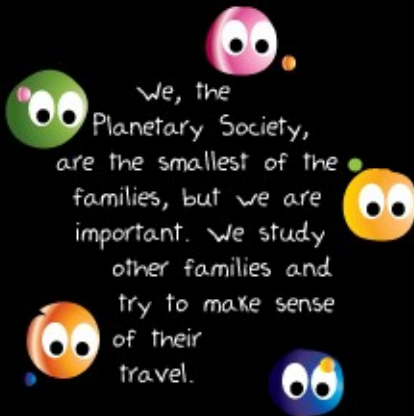
Miss Asteroid

I am Miss Asteroid. Be alert! Asteroids can be violent and smack into things.



Planetary Society

We, the Planetary Society, are the smallest of the families, but we are important. We study other families and try to make sense of their travel.



Star Sisters

We are the Star Sisters, a bright, long-lived family. Some of us are nice and cool Stars, and some of us are hot.



Comet Band

We are icy and travel fast. You may not see us very often. We are the Comet Band.



Mighty Galaxy Community

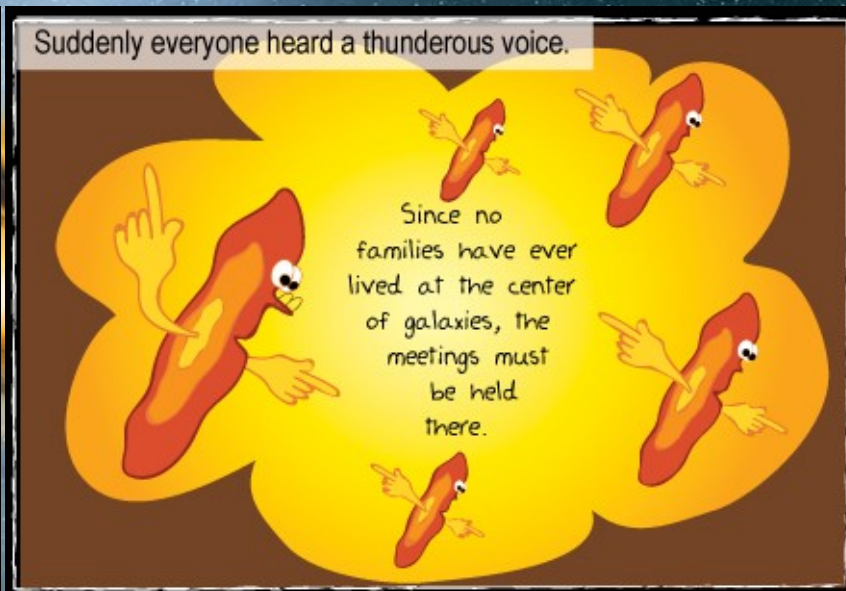
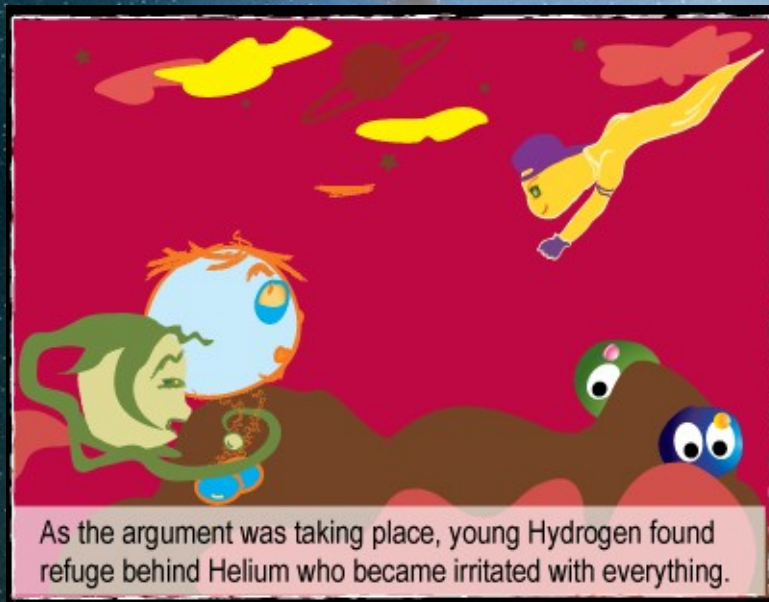
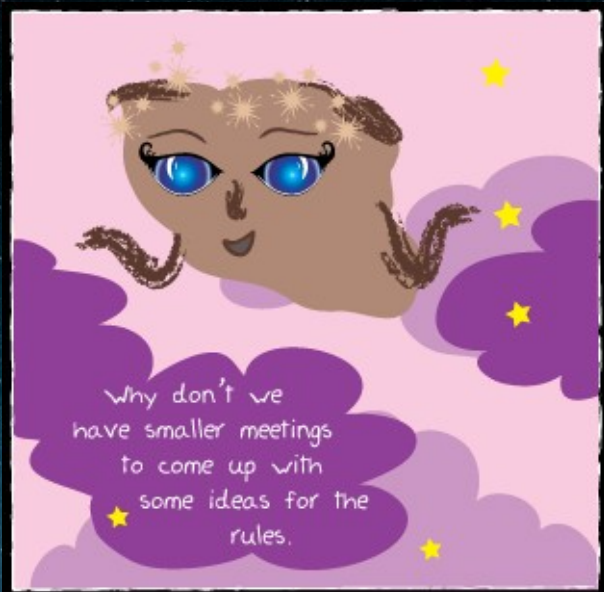
We are the Mighty Galaxy Community, a very strong, powerful group.



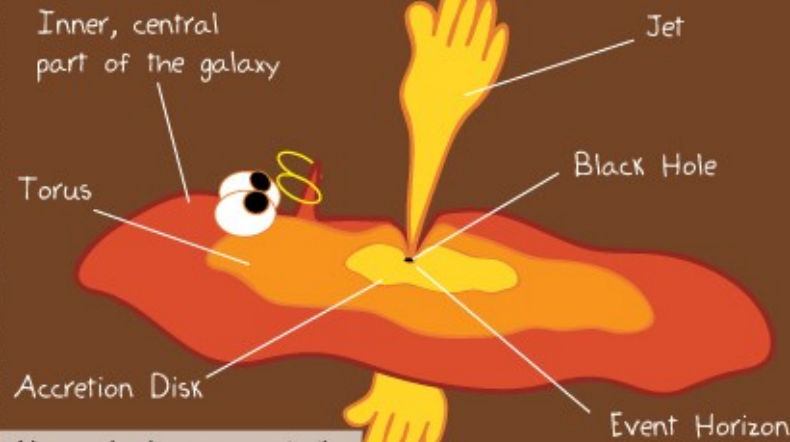


The families of matter traveled through space and moved freely from one place to another. Everything was fine until they came too close to each other...





Active Galaxy Anatomy



No one had ever gone to the centers of galaxies so no one knew the terrible secret about them.

At the center of each galaxy there was a mysterious Black Hole powerful enough to pull in and trap everything that gets close to its edge. Black Holes even pull in light, which is why they are so black. As the families got near the event horizon, they wouldn't be able to escape!

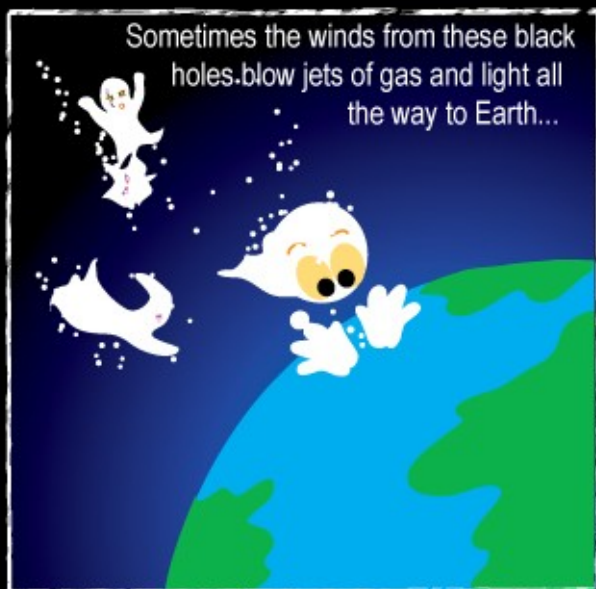




The Black Hole saw that the families could not get along, and did not want them to come any closer to the center of the galaxy. So before they could get inside the event horizon, it scrambled them up and tore them apart, sending them tumbling away through the galaxy as a jet of whirling gas and light.



The families in our Milky Way galaxy have found a way to get along. However, even today there are still some galaxies with families of matter who keep arguing...



When the jets arrive on Earth, the light is studied by scientists who wonder what causes the galaxies to send out such big jets of matter and energy. But you know what's really happening!

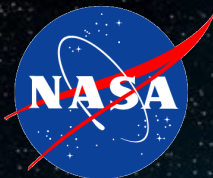


And that is how the galaxy got its jets.

Components of the Pop Up Display



ACTIVE GALAXIES



Sponsors

GLAST: Gamma-Ray Large Area Space Telescope

Planned for launch in 2007

GLAST has two instruments:

- Large Area Telescope (LAT)
- GLAST Burst Monitor (GBM)

GLAST will look at many different objects within the energy range of 10keV to 300GeV.



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