

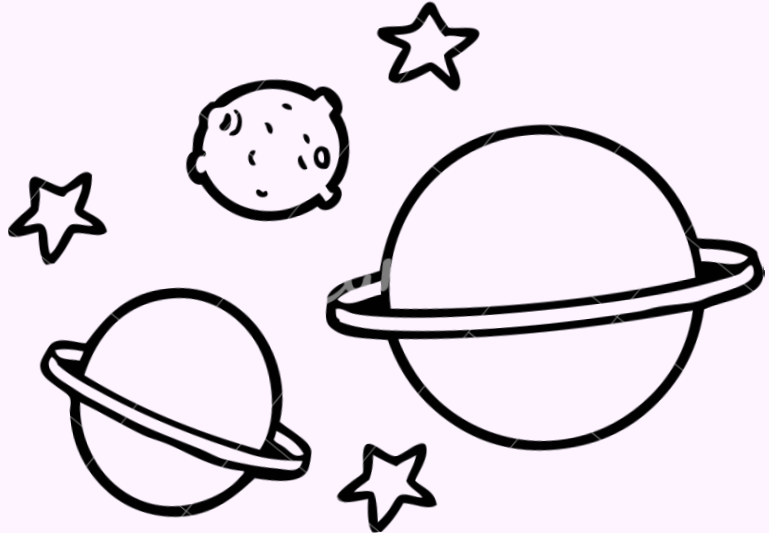


# Xavier's Daily

## ➔ Challenge yourself!

What is so fragile that saying its name breaks it??

Answer - Silence



## ➔ Spectrum's Corner

### Thought of the Day

"Always be yourself, express yourself, have faith in yourself, do not go out and look for a successful personality and duplicate it."

### Word of the Day

*perseverance* \ noun  
: continued effort to do or achieve something despite difficulties, failure, or opposition

eg. "For achieving success, perseverance is the utmost important personality"

# ACCELERATING UNIVERSE

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[Science Club]

Two independent research teams of ESO (European Southern observatory) with ESO staff find that the Cosmos (Universe) is not only expanding but is expanding at an increasing rate. The finding is based on observations of supernovae (exploding stars) and measurement in the cosmos which was made from ESO's telescope at La Silla and Paranal that the expansion of the Universe is accelerating.

This discovery was rewarded with the 2011 Nobel Prize in Physics. The discovery of the cosmological expansion took one step further and challenge recent models of the Universe. It was one of the most unexpected and important discoveries of the last decades. It was so unexpected because, until that point, everyone believed that the expansion of the Universe should slow down by the attractive force of gravity exerted by all of the matters present in the Universe.

There are two possible explanations for this acceleration: First, nearly  $\frac{3}{4}$  of the Universe consists of some form of mysterious dark energy, that exerts negative pressure. Second, there must be something wrong with our understanding of gravity, but either way, we are confronted with completely new physics.



### DID YOU KNOW?

The Earth is about 4.5 billion years old- but that's only a third of the age of the universe- which is 13.5 billion years.