

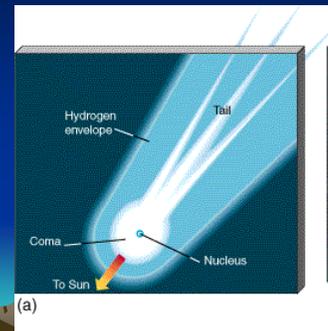
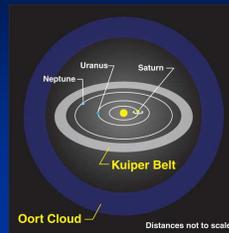
# Comet ISON



# Comet Review

- Comets formed 4.5 billion years ago
  - Along with the Sun, planets, moons, & asteroids
- Made of ice, rock, dust, and frozen gases
- The Sun's radiation, solar wind, and heat boil away the comet's surface and forms an atmosphere (or the "tail")
  - Only have a tail as they approach the Sun, always points away from Sun
- Spend most of time in Oort Cloud, but sometimes are "pushed" into the Solar System

# Comet Review



## Comet C/2012 S1 (ISON)

- ISON started its journey towards the Sun (out of the Oort Cloud) a few million years ago
- Discovered by Russian astronomers, part of the ISON Project (International Scientific Optical Network) in September 2012.
- Comet ISON is a **sungrazer**, a comet that travels close to the Sun, and might be boiled away!



## Why is ISON important?

- Bright sungrazer comets can be visible during the daytime, are spectacularly beautiful, and very rare.
- Scientists have the chance to study how comets are made by studying the atmosphere (tail) of ISON as the Sun boils it away, giving us more clues into how the early Solar System formed.



## Ancient Times

- Comets were seen as important mystical or religious signs, omens, or portents.
- Like the Sun, Moon, planets, and stars, ancient astronomers studied comets closely.



## Modern Times

- People interested in rare, beautiful displays of the natural world love comet watching! And scientists love to study comets to further our knowledge.
- But, crazy people like to come up with conspiracy theories about comets . . .
  - ISON is Nibiru, it's planet-sized and it's going to kill us!
  - Earthquakes, Volcanoes, Giant Meteor Impact!!!
  - What is NASA not telling us?!?
  - ISON is somehow tied to the current government shutdown.
  - And many, many more wacky ideas . . . just search "ISON" on YouTube

I'M NOT SAYING IT'S ALIENS



BUT IT'S PROBABLY ALIENS