

# Comets

Elliptical Orbits

Random Orientation

Dirty Snowballs

Ices (H<sub>2</sub>O, CO<sub>2</sub>, Methane, Ammonia)

Rock (Carbon)

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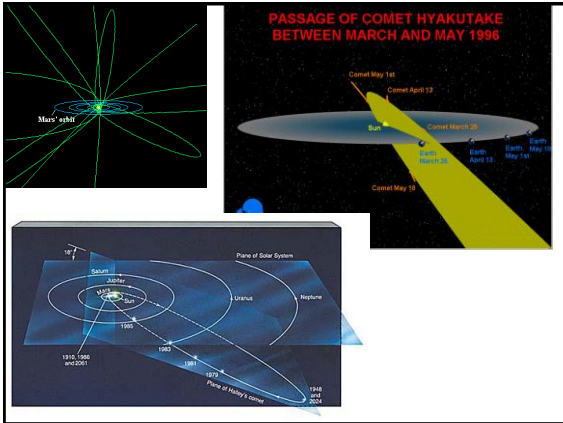
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Comet Nuclei (Core), 10 km

Coma or Head (1,000,000 km)

Tails

Gas - Always points away from Sun

Dust - Trails behind



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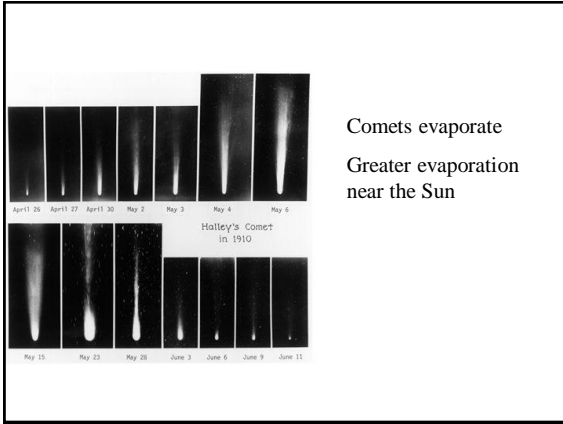
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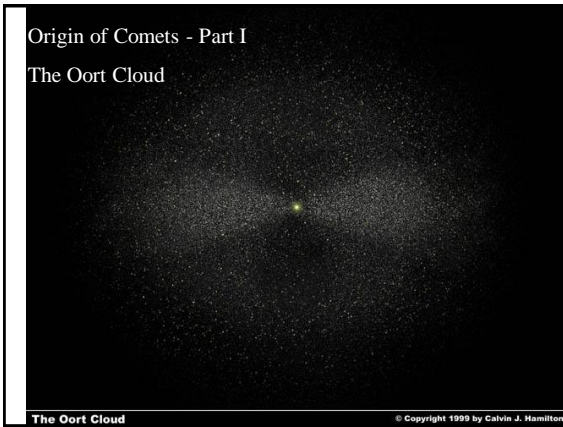
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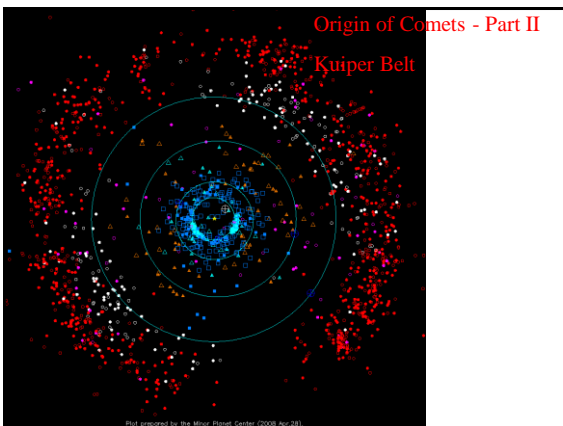
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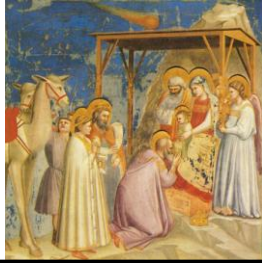
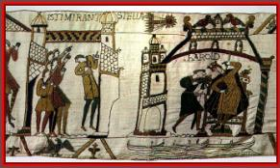
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Famous Comets - Halley's Comet



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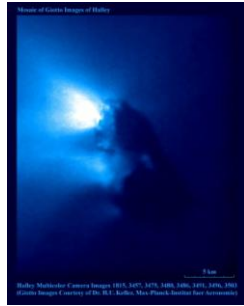
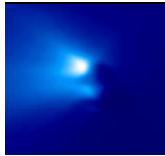
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Animation from the Giotto Spacecraft

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Comet Hale-Bopp - 3rd brightest in history!

Most photographed comet



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## Asteroids

### *Minor Planets*

First one discovered in 1801

100,000 observed, >10,000 named

Circular orbits

Close to the Ecliptic - Most in Asteroid Belt

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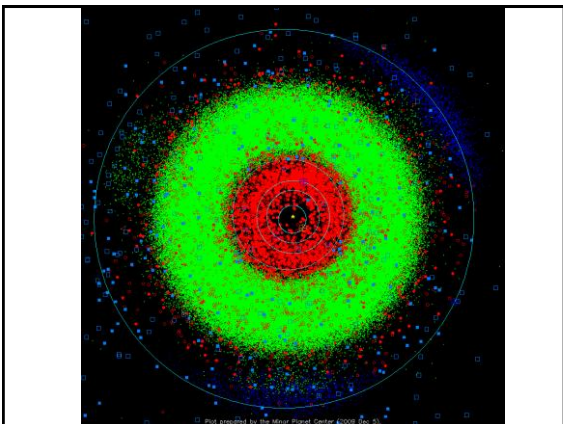
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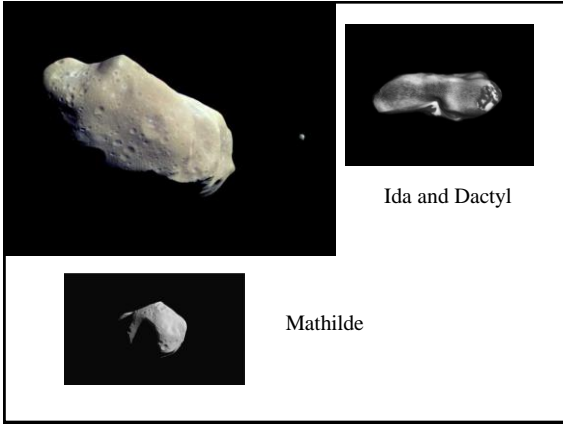
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### Asteroid Names

- Mythology
- Famous People, Places
- Other - Eric Clapton, Bee Gees, Enya, McCartney, Lennon, Starr, Harrison, Beatles, Rolling Stones, Pink Floyd, Jerry Garcia, Frank Zappa, Bruce Springsteen, Jimmy Page....
- Silly - Monty Python

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What happens when comets and asteroids get too close?  
Meteor-oids, -s, -ites

- **Meteoroid** - Small object in space, natural or otherwise
- **Meteor** - object going through the atmosphere, the trail it leaves behind, a "Shooting star"
- **Meteorite** - when it hits the ground

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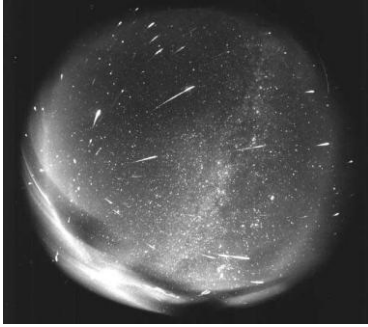
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### Meteors



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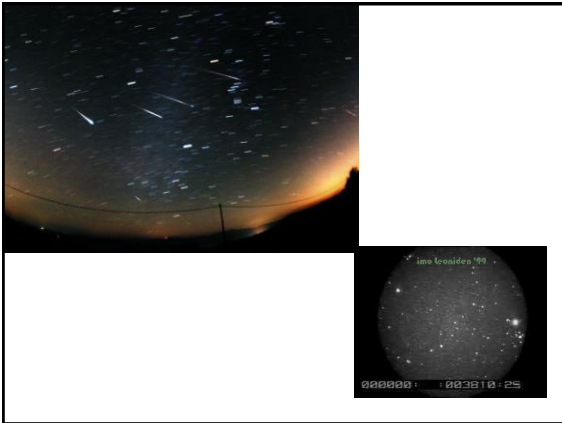
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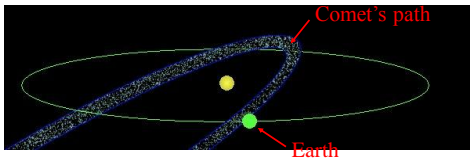
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Meteor showers are caused by Comets!



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Meteors/Meteorites that make an "Impact"



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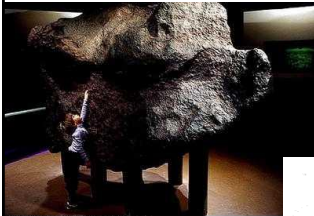
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Heads up!



5 Hoba meteorite in Namibia



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**Alabama 11/28/1954:** Mrs. Annie Hodges struck by 9lb meteorite that crashed through roof, destroying radio



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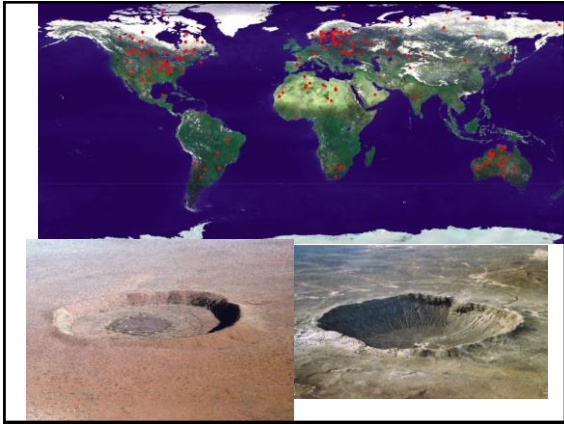
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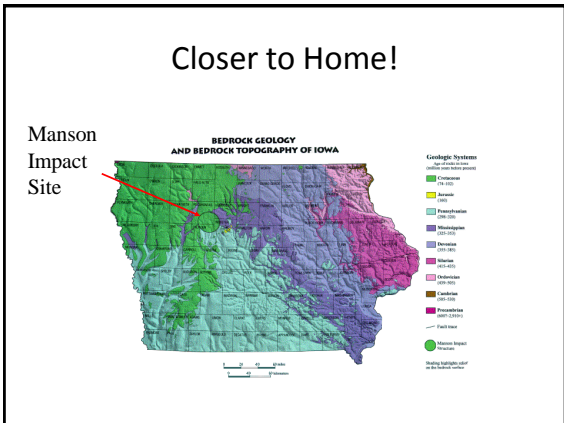
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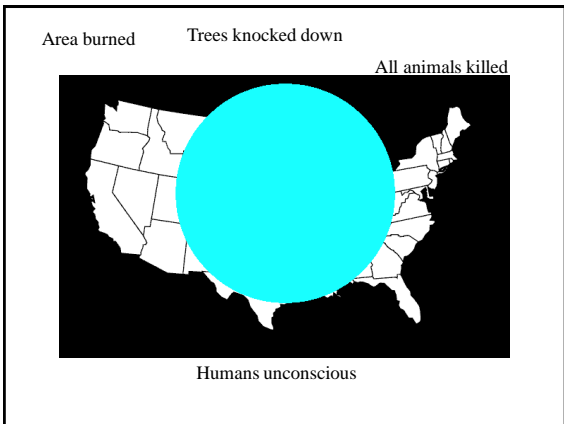
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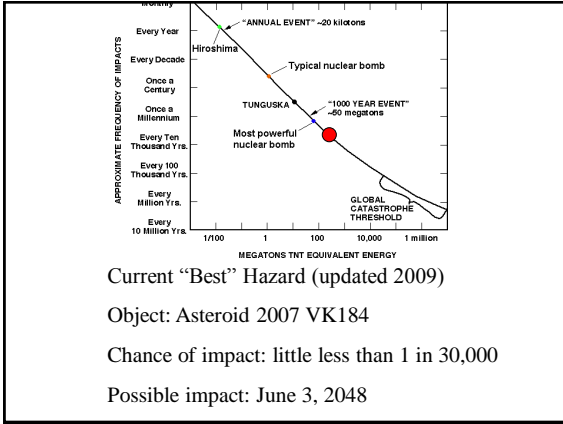
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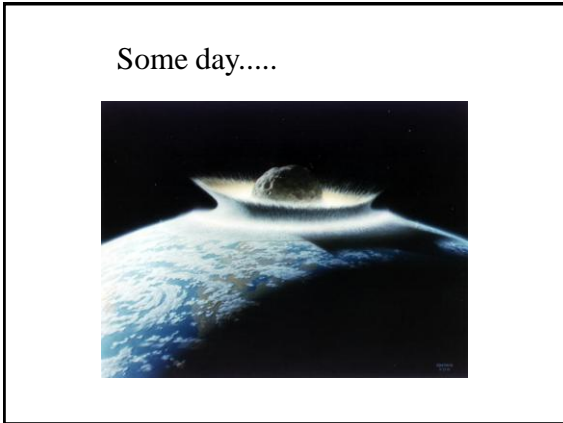
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