

## Comets: Providers of Life?

- Dirty \_\_\_\_\_
- Less than \_\_\_\_\_ miles across
- As they get close to the \_\_\_\_\_ the ices on their surface \_\_\_\_\_.
- Best viewed in the \_\_\_\_\_ or \_\_\_\_\_ skies.

### Anatomy of a Comet:

- Nucleus:
  - o Less than \_\_\_\_\_ mile diameter ( \_\_\_\_\_, methane, \_\_\_\_\_)
  - o Planetary “building block” which never got incorporated into a planet.
- Coma:
  - o Cloud of \_\_\_\_\_ & \_\_\_\_\_ produced by evaporation of the nucleus when warmed \_\_\_\_\_.
  - o Can extend \_\_\_\_\_ miles.
- Tail:
  - o Coma material pushed back by the \_\_\_\_\_
  - o Always points \_\_\_\_\_ the Sun
  - o Can stretch up to \_\_\_\_\_.

### Oort Cloud:

- Extends \_\_\_\_\_ way to the nearest \_\_\_\_\_. (50,000 A.U.)
- May contain \_\_\_\_\_ comets.

### Long vs. Short:

- Long period comets:
  - o \_\_\_\_\_ of years
    - \_\_\_\_\_ : Approx. 4200 years
    - \_\_\_\_\_ : 10,000 – 20,000 years
    - \_\_\_\_\_
- Short period comets:
  - o \_\_\_\_\_ years
    - \_\_\_\_\_ : 76 years
    - \_\_\_\_\_ : 3.3 years

### Comet spacecraft:

- \_\_\_\_\_
- \_\_\_\_\_

Comets lose about \_\_\_\_\_ of their \_\_\_\_\_ with each pass by the \_\_\_\_\_.

Meteors - \_\_\_\_\_ particles that enter our atmosphere.

### Meteor Showers:

- \_\_\_\_\_ generate vast amounts of debris.
- The Earth's orbit \_\_\_\_\_ the orbit of a few dozen short period \_\_\_\_\_.
- The Earth passes through the \_\_\_\_\_ once a \_\_\_\_\_.
- All meteors will appear to \_\_\_\_\_ from a fixed point in the sky.
- They occur on a \_\_\_\_\_ date.
- Immediately after the \_\_\_\_\_ of a comet the \_\_\_\_\_ can be greatly enhanced.