

The Comet's Tale (key) Name: _____

Astronomer's Review IV

Comet Orbits

1. In the word perihelion, “peri” means close. What do you think the “ap” in aphelion means?

“Ap” comes from New Latin “apo” which means “away” or “from”.
Note: “helios” (of “helion”) comes from Greek and means “sun”.

2. What is the period of a comet?

The “period” of a comet is the time required for the comet to go once around its orbit and return to the same spot. For example, Comet Halley has a period of 76 years which means it takes 76 years for Comet Halley go around its orbit one time.

3. Do you know another name for the earth’s orbital period? (Hint: Think of the calendar.)

The earth’s orbital period is “one year”. In other words, every year the earth goes around the sun once.

4. What is a long period comet?

A long period comet is a comet with an orbital period of 200 or more years, and usually comes from the Oort Cloud.

5. How long can the period be for a long period comet?

The period has to be more than 200 years, and some have been estimated to have periods of (100,000) years! Since these comets travel from the distant Oort Cloud they can take from hundreds of years to over a hundred thousand years to travel once around the sun. Comet Hale-Bopp is a good example of a long period comet, having a 2500 year period.

6. How are short period comets different from long period comets?

Short period comets originate from the Kuiper Belt, and have orbital periods of less than 200 years. These comets come in and out of our “near Earth” area with more frequency than long period comets. Halley’s Comet (76 year period) and Comet Encke (3.3 year period) are examples of short period comets.