


Module 9: The Solar System

Topic 5 Content: The Anatomy of a Comet Notes

Introduction

The Anatomy of a Comet

Introduction



Comets are sometimes named "dirty snowballs" because of their composition. Comets are basically balls of snow and ice. Click on the Next arrow in the lower right corner to learn about the anatomy of a comet.

Image Courtesy of NASA

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Module 9: The Solar System

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Gas Tail

The Anatomy of a Comet

Gas Tail



An ion tail made of gases always points away from the Sun, no matter where the comet is in its orbit. This tail is the result of evaporating gases from the nucleus.

Image Courtesy of NASA

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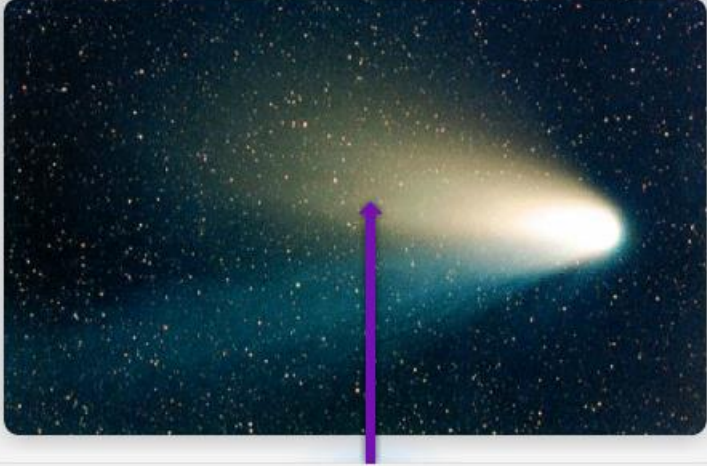
Module 9: The Solar System

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Dust Tail

The Anatomy of a Comet

Dust Tail



Comets have a tail pointing in the same direction as the gas tail. This tail is made of dust from the disintegrating nucleus.

Image Courtesy of NASA

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Module 9: The Solar System

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Nucleus

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Nucleus



The center of a comet can range from 100 meters to 400 meters across. The nucleus is composed of rock, dust, ice and frozen gases such as carbon monoxide, carbon dioxide, methane, and ammonia. The nucleus may even contain organic material.

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Module 9: The Solar System

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Coma

The Anatomy of a Comet

Coma



The most visible part of a comet is the coma. The coma encompasses the streams of dust and gas that surround the nucleus.

Image Courtesy of NASA

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