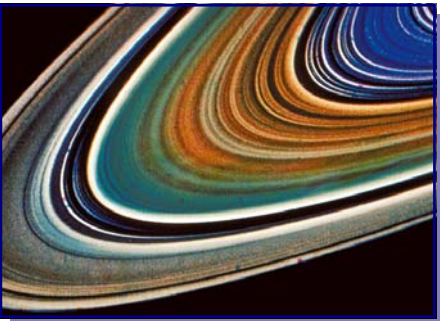


## *The Voyagers opened a new frontier — the worlds of the outer solar system!*

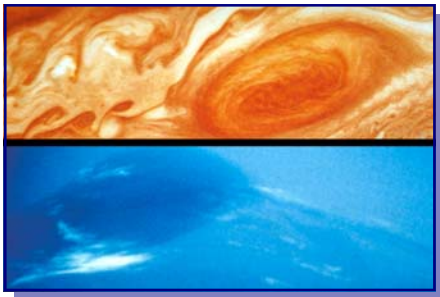
Running time: 42:30  
Grade level: 4-12 and  
general public audiences



From 1979 to 1989 the Voyager 1 and 2 missions explored the wonders of the outer solar system. *The Voyager Encounters* is the definitive summary of results returned by the two spacecraft. It recaps the flybys of Jupiter, Saturn, Uranus and Neptune in one convenient, thorough documentary.



The show begins with an historical look at Galileo Galilei's observations of the planets Jupiter and Saturn, progressing through three centuries of ground-based studies of the outer planets. The show then introduces the two Voyager spacecraft and describes their trajectories and instrument packages.



Voyager's cameras provided rare and visually stunning views of the worlds of the outer solar system, plus invaluable information about the chemical makeup of each planet's atmosphere, internal structure, magnetic fields, rings, and moons.



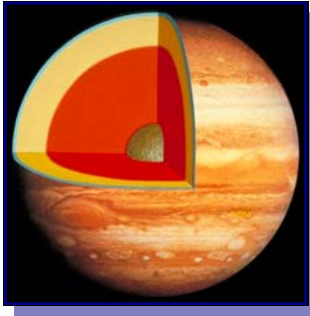
Voyager's planetary odysseys began at Jupiter, an impressionistic study in cloudy turbulence, sporting a Great Red Spot and a collection of moons — among them volcanic Io. Next was Saturn, with its ten thousand glittering rings, cloud-shrouded Titan, and a flock of smaller icy moons. That was followed by bland-looking Uranus, a planet that rolls around the Sun on its side. It boasts a set of dark rings and its own collection of icy worlds. Voyager's close flyby of Neptune showed storms in its upper atmosphere, and revealed the mottled surface of the unusual moon Triton.

The show ends with these hardy space voyagers leaving the solar system — each serving as Earth's ambassador to a far future rendezvous in distant star systems.

Along with its sister planetary shows *Magellan: Report from Venus* and *MarsQuest*, *The Voyager Encounters* is an excellent way to present the wonders of the solar system to audiences.

Narrated by Patrick Stewart  
Written by Carolyn Collins Petersen  
Produced by Mark C. Petersen  
Original artwork by Tim W. Kuzniar





## Science Education Content

The educational focus of *The Voyager Encounters* is to present the discoveries made by the Voyager spacecraft at the gas giant planets, their moons, and ring systems. The show uses a set of multi-disciplinary themes in physical sciences, Earth and space sciences, and history of science. These ideas are woven together with images and help relate the information presented in the show to the lives of students, families, and the general public.

Show content is relevant in the following subject areas:

### Earth and Space Sciences/Physical Sciences:

- Orbital motions of the outer planets, moons, rings
- Characteristics of Jupiter, Saturn, Uranus, Neptune
- Properties of planetary atmospheres, moons, rings magnetic fields
- Processes of change in the outer solar system

### History of Science/Science Inquiry/Technology:

- History of telescopic exploration of the outer planets
- Galileo's 17th-century planetary observations
- Modern ground-based observations
- Orbital trajectories and spacecraft instrumentation for planetary exploration

This show adheres to principles put forth in the National Academy of Sciences' Education Standards published in 1996. For more details, visit the NAS Standards Web site at: <http://books.nap.edu/html/nse/html/index.html>.

Voyager nears  
the rings of  
Saturn...



... just one  
of the  
~76,000  
dome  
master  
frames in  
this show.



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Revised 10 February 2010