

Space Science

2d Visions in a 3d World

03227,VH VHS Videocassette
10 min IJ 1994 G.P.N
Math Vantage Series - Spatial skills for visualizing, representing and interpreting objects and object drawings are explored in various areas such as holograms, stereoscopic vision, box making and computer assisted design.
Space perception; Mathematics(CK)

All Systems Go

03484,VH VHS Videocassette
34 min JS 1992 NASA
Lift off to Learning Series - This program discusses the reasons for and demonstrates some of the physiologic changes that occur in the human body while in the microgravity environment.
Astronauts; Space science; Science(CK)

The Amazing universe

15155,DV DVD Cassette
IJ 2005
Narrated by Nina Keck.
Astronomy Series - Concepts and vocabulary conveyed in the programs include: constellations, spiral galaxy, elliptical galaxy, barred spiral galaxy, light-year, apparent magnitude, nebula, white dwarf, giant star, neutron star, supernova, prominence, sunspot, solar flare, meteor, crater, and comet.

Solar system; Stars–Astronomy (Other); Astronomy–Universe (Other); Light-year; Meteors; Meteorite craters; Space sciences; Supernova; Outer space–Exploration; Astronomy; Comets; Constellations; Galaxies; Outer space–Exploration; Y2003 Csc S01 G11-12 Bb L11 I02(CK); Y2003 Csc S01 G06-08 Ba L08 I03(CK); Y2003 Csc S01 G06-08 Ba L08 I04(CK); Y2003 Csc S01 G06-08 Bb L08 I05(CK); Y2003 Csc S01 G06-08 Bb L08 I06(CK); Y2003 Csc S01 G06-08 Bb L08 I07(CK); Area Media Centers Digital Videos(CK); Y2003 Csc S01 G06-08 Ba L08 I01(CK); Y2003 Csc S01 G06-08 Ba L08 I02(CK); Science(CK)

And Then There was Voyager

02725,VH VHS Videocassette
30 min JS 1990 NASA
Results of the Voyager space probe of the outer planets.
Space probes; Voyager Project; Science(CK)

Assignment Spacelab

03474,VH VHS Videocassette
16 min JS NASA
Lift off to Learning Series - Astronauts on space shuttle mission STS-58 demonstrate how space flight affects the body.
Space stations; Vocational/Industrial tech/Business(CK)

Astronomy

For descriptions see individual titles:
The Amazing universe

Bill Nye

For descriptions see individual titles:
Outer Space
Space Exploration

Bill Nye, the science guy

For descriptions see individual titles:
The Moon

The Century: Events that Shaped the World

For descriptions see individual titles:
Heaven and Earth: First Step

Cold War

For descriptions see individual titles:
Sputnik 1949-1961

Destination Tomorrow

For descriptions see individual titles:
Destination Tomorrow
Prog.9:Bringing the Future into focus

Destination Tomorrow Prog.9:Bringing the Future into focus

11109,DV DVD Cassette
30 min S 2003 NASA
Destination Tomorrow Series - This program consists of 5 Segments. 1:"Behind the Scenes"Viewers will learn about the HELIOS experimental airplane. 2:"Tech Watch"-Learn about a new breast cancer detection device developed by NASA which will help save lives. 3:"Retrospective"-Learn about Project Gemini. 4:"On the Runway"see how NASA is making flying quieter. 5:"How It Works"-See how spacesuits work.
Flight; Space suits; Science(CK)

Earth's attraction: Gravity/density

11063,DV DVD Cassette
12 min P 2005 Landmark Media
Johan: The Young Scientist Series - Earth,moon or outer space? Johan and his friends will need to explore to find the difference between gravity and density.
Gravity; Density; Space science; Science(CK)

Eating and Sleeping in Space

02709,VH VHS Videocassette
29 min PIJS 1987 NASA
Dr. Sally Ride narrates and shows what astronauts do to eat and sleep aboard the space shuttle. Suitable for primary if teacher narrates video.
Astronauts; Space vehicles; Science(CK)

Exploring our Solar System

05000,VH VHS Videocassette
15 min IJS 1989 Aims
This program combines live-action photography, breath taking footage from space, artwork, and three-dimensional models to present much new information in an exciting introduction to the solar system.

Astronomy; Planets; Solar system; Space science; Science(CK)

Exploring Space: The Universe

04974,VH VHS Videocassette
28 min IJ 1995 Altschul Group
Using footage from NASA, computer graphics, and special visual effects, students will learn about the vastness of the universe. The life of stars, the unbelievable distances between stars and galaxies, and other mysteries of the universe are discussed. Terms such as supernovas, black holes, and nebulas are presented and explained.
Space science; Universe; Science(CK)

Eyes in the Sky: Astronomy Episode 2

03477,VH VHS Videocassette
15 min JS 1994 NASA
What's in the News Series - Focuses on people's fascination with the universe and their study of it, from stargazing with the unaided eye to scientific exploration using the Hubble Space Telescope.
Astronomy; Space probes; Science(CK)

The Eyes of Nye

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Astrobiology

07088,VH VHS Videocassette
07088,DV DVD Cassette
25 min S 2005 Disney Educational Productions
Does extraterrestrial life exist? How do scientists search for life in outer space? Consider the methods behind the fascinating possibility of extraterrestrial life.
Life on other planets; Outer Space; Science–Methodology; Science(C*K)

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A First Look At

For descriptions see individual titles:
Sky Above: A First Look

Flight of Apollo 11 (The Eagle has landed)

11087,DV DVD Cassette
30 min IJS NASA
1 Historical quotation about the space exploring. 2. July 11, 1969: Apollo 11 lifts off. 3. Lunar module in space. 4 Astronauts works aboard the Lunar Module. 5 Destination: The moon 6. Astronauts Armstrong and Aldrin on the Moon. 7. Leaving the moon, Eagle heads for Columbia. 8. Missions ends safely, Astronauts head for debriefing. 9. Mission complete: Review and evaluation.

Aeronautics; Aeronautics-History; Apollo 11 (Spacecraft); Armstrong, Neil 1930; Science(CK); Social studies(CK)

Functions & statistics: Dressed for space

11092,DV DVD Cassette
29 min IJ 2002 NASA
NASA Connect Series - Building on past space suit technologies,NASA engineers and researchers use functions and statistics to create the next generation of space suits for the International Space Station and beyond.

Space suits; Statistics; Mathematical statistics

Go for Eva

03485,VH VHS Videocassette
15 min JS 1991 NASA
Lift off to Learning Series - Demonstrates the space suit and explains why it is necessary. An educational activity is available for use with this tape.

Space science; Space suits; Science(CK)

Go for EVA

11099,DV DVD Cassette
14 min PIJ 1991 NASA
Lift off to Learning Series - Presents astronauts aboard Atlantis mission STS-37 discussing the reasons for wearing spacesuits during spacewalking missions,how spacesuits work,and what kind of jobs astronauts perform while space-walking.Actual footage of spacewalks-also known as extravehicular activities (EVA's)-illustrate how spacesuits allow astronauts to operate scientific apparatus,assemble equipment and structures,pilot the Manned Maneuvering Unit, take pictures,and service satellites and space hardware.

Space suits; Space shuttles; Science(CK)

Great Comet Crash

03605,VH VHS Videocassette
60 min SA 1994 WHYY
In July 1994, a 30-kilometer string of comet fragments crashed into Jupiter, unleashing a blast with the force of millions of megatons of TNT. See the startling images relayed from the Hubble Space Telescope and other satellites. Investigate the scientific information that can be gathered from the crash. Get an unusual look at how astronomical events are viewed in poetry, mythology and the arts through the ages. Guests include Derrick Pitts, director of the Fels Planetarium at Philadelphia's Franklin Institute, Drs. Carolyn and Eugene Shoemaker, two of the comet's discoverers; an educator; a student; and a mythologist. [cc].

Astronomy; Comets; Hubble Space Telescope (Spacecraft); Science(CK)

Head's Up

For descriptions see individual titles:
How do I become an astronaut?
How can I explore space?

Heaven and Earth: First Step

05087,VH VHS Videocassette
42 min JS 1999 ABC News
The Century: Events that Shaped the World Series - This program observes the first landing on the lunar surface from the perspective of the visionary technicians, scientists, and

researchers who, in control rooms and laboratories, made it possible.

Moon; Space flight to the moon; United States-History-1961-1974; Science(CK); Social studies(CK)

The History of NASA's Rocket Engine Test Facility

11003,DV DVD Cassette
35 min IJS 2005 NASA
Built in Cleveland in 1957,then in 1984 declared a National Historic Landmark,the RETF helped NASA and the United States lead the way in space exploration. Although it was officially shut down in 1995 then demolished in 2003 for the Cleveland Hopkins expansion,its contributions to space flight continue to support scientific discoveries being made today and provide the foundation for the scientific discoveries of tomorrow.

Rocketry; Space flight; Science(CK)

History of Space Flight

02721,VH VHS Videocassette
23 min JS 1990 NASA
Follows the history and development of space flight.
Space science; Science(CK)

How can I explore space?

07498,DV DVD Cassette
28 min IJS 2007 Landmark Media
Head's Up Series - You don't need to be an astronaut or astronomer to see what space is like. Take a visit to Space Camp! Meet some young people who are building a Mars colony.

Space; Space colonies; Science(CK)

How do I become an astronaut?

07478,DV DVD Cassette
28 min IJS 2007 Landmark Media
Head's Up Series - Watch as astronauts train for a space mission. Learn how to make dinner on the Space Shuttle. Pay a visit to Space Camp and the International Space Station.

Astronauts; Career; Space stations; Space shuttles; Science(CK)

Infinite Voyage: Sail on Voyager

02724,VH VHS Videocassette
60 min JS 1990 NASA
Designing of the Voyager flight to Jupiter and Saturn.
Space probes; Voyager Project; Science(CK)

Johan: The Young Scientist Series

For descriptions see individual titles:
Earth's attraction: Gravity/density

Journey into Space: From Sputnik to the Space Shuttle

02211,VH VHS Videocassette
11 min IJS 1987 York Films
Spacewatch Series - From the first man in space in 1961, to the first step on the moon in 1969, science fiction has rapidly become science fact. Witness American astronauts working on the moon's surface, and visit Skylab, the orbiting workshop equipped with everything from a solar telescope to a kitchen sink. Finally, look at current and future uses of the versatile, reusable space shuttle, part of man's continuing journey into space.

Space flight; Science(CK)

Junior Space Scientist

For descriptions see individual titles:
Our Solar System

Space Science

Jupiter the Giant, Saturn the Gem

07828,VH VHS Videocassette
12 min IJS 1982 NASA
Discusses Jupiter and Saturn and their moons as seen by the Voyager spacecraft.

Planets; Space probes; Science(CK)

Lift off to Learning

For descriptions see individual titles:

All Systems Go
Assignment Spacelab
Go for Eva
Go for EVA
Liftoff to Learning: Assignment Spacelab
Liftoff to Learning: Living in Space
Liftoff to learning: Microgravity
Liftoff to learning: plants in space
Liftoff to Learning: Space Basics
Living in Space
Mathematics of Space-Rendezvous
Newton in Space
Space Shuttle - Return to flight
Tethered Satellite: Physics & Physical Science

Liftoff to Learning: Assignment Spacelab

11102,DV DVD Cassette
17 min IJ 1995 NASA
Lift off to Learning Series - Shows how the unique microgravity environment on Earth orbit is used for scientific experiments and how the rules of scientific experimentation and safety that apply to research on Earth also apply to astronauts in space. The on orbit scenes were taken during the STS-58 mission of Columbia.

Space vehicles; Science(CK)

Liftoff to Learning: Living in Space

11104,DV DVD Cassette
10 min PI 1994 NASA
Lift off to Learning Series - Demonstrates what its like to live & work in space. Viewers are invited by the Space Shuttle crew to join the astronauts as they go through their daily routine living onboard the Space Shuttle. Students see the similarities and differences in eating, exercising, relaxing, maintaining personal hygiene, sleeping, and working in space vs on Earth. Orbital scenes were taken during the STS-56 mission.

Space vehicles; Space shuttles; Science(CK)

Liftoff to learning: Microgravity

11095,DV DVD Cassette
24 min IJS 1996 NASA
Lift off to Learning Series - Focuses on the four scientific disciplines in microgravity studies: fluid physics, materials science, biotechnology, and combustion. Experiments within these disciplines explore how the effects of buoyancy-driven convection and sedimentation, seen in ground-based laboratories, are diminished in space, allowing scientists to expand their knowledge in these areas. "Microgravity" describes the restrictions that gravity imposes on scientific experimentation and how they can be greatly reduced in the exciting research environment of the Space Shuttle and later on in the international Space Station.

Gravity; Space shuttles; Science(CK)

Liftoff to learning: plants in space

11096,DV DVD Cassette
13 min IJS 1999 NASA
Lift off to Learning Series - Students at an elementary school participate in an experiment on plant growth with Space Shuttle astronauts. Identical seed growth pouches are planted with corn and soybean seeds. Some of the seeds are germinated on Earth and others on the Space Shuttle in Earth orbit.

Plants; Space shuttles; Science-Experiments; Science(CK)

Liftoff to Learning: Space Basics

11105,DV DVD Cassette
21 min IJ 1991 NASA
Lift off to Learning Series - Shows astronauts aboard Shuttle mission STS-41 using computer graphics and visual demonstration to answer four basic questions about spaceflight: How do spacecraft travel into space? How do spacecraft remain in orbit? Why do astronauts float in space? How do spacecraft return to Earth? Learn how English scientist Isaac Newton formulated the basic science behind Earth's orbit more than 300 years ago.

Space shuttles; Space vehicles; Science(CK)

Living in Space

03475,VH VHS Videocassette
11 min JS 1994 NASA
Lift off to Learning Series - The daily routine of living onboard the Space Shuttle is described and compared to living on Earth.

Space shuttles; Science(CK)

Living in Space: Episode 7

03476,VH VHS Videocassette
15 min JS 1994 NASA
Examines the physiological changes to the body in space, such as a shift in body fluids and loss of calcium. Also looks at change in everyday living, including washing, sleeping, eating, and going to the bathroom.

Space science; Space shuttles

Look Back to Home

07819,VH VHS Videocassette
10 min IJS 1972 NASA
Futuristic visions of Jules Verne are equated with present and future space technology. Skylab, beneficial uses of weightlessness, living in space, and space shuttles are discussed.

Space science; Science(CK)

Magellan: Exploration Of Venus

07821,VH VHS Videocassette
4 min IJ 1989 NASA
Discusses the Magellan mission profile.

Planets; Space probes; Science(CK)

Math Vantage

For descriptions see individual titles:
2d Visions in a 3d World

Mathematics of Space-Rendezvous

11100,DV DVD Cassette
17 min IJS 1998 NASA
Lift off to Learning Series - Addresses the basic mathematical operations of spacecraft rendezvous in Earth's orbit. Middle school math students solve problems that occur when the Space Shuttle docks with the Russian space station MIR. The video has stopping points so students can work the problems.

Mathematics; Mathematics(CK); Space stations

Mercury: Exploration of a Planet

07820,VH VHS Videocassette
23 min IJ 1976 NASA
The flight of the Mariner 10 spacecraft to Venus and Mercury is detailed in animation and photography.

Planets; Space probes; Science(CK)

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The Moon

15069,DV DVD Cassette
IJ 1995
Host, Bill Nye.
Bill Nye, the science guy Series - Learning about Earth's natural satellite is an out of this world experience as loony Bill Nye illuminates the orbit and phases of the moon. The show features an interview with Harrison Schmitt, the last astronaut to walk on the moon.

Moon—Surface; Moon; Space flight to the moon; Tides; Y2003 Csc S01 G03-05 Ba L05 I04(CK); Y2003 Csc S01 G11-12 Bb L11 I02(CK); Area Media Centers Digital Videos(CK); Y2003 Csc S01 Gkg-02 Ba Lkg I01(CK); Y2003 Csc S01 G03-05 Ba L05 I02(CK); Y2003 Csc S01 G06-08 Ba L08 I01(CK)

NASA Connect

For descriptions see individual titles:
Functions & statistics: Dressed for space
Opening space for next generation explorers

Newton in Space

03480,VH VHS Videocassette
13 min JS 1992 NASA
Lift off to Learning Series - Explains Newton's Laws and how they apply to a microgravity environment.
Gravity; Space science; Science(CK)

Opening space for next generation explorers

11093,DV DVD Cassette
30 min IJ 2003 NASA
NASA Connect Series - NASA's Space Launch Initiative(SLI) Program will ultimately move the nation from the explorations of the Mercury,Gemini,Apollo and Space Shuttle missions to a new period of pioneering when people and businesses are more routinely traveling,working and living in space.
Space colonies; Space stations; Science(CK)

Our Solar System

04214,VH VHS Videocassette
9 min PI 1995 United Learning
Junior Space Scientist Series - This video introduces the planets of our solar system through video taken in space, animation, and demonstrations. Information about the planets is shared by comparing characteristics and examining differences as well as similarities. Terms such as gravity, orbit, rotation, stars, and density are introduced.
Teacher's Guide
Solar system; Space science; Science(CK)

Outer Space

07863,VH VHS Videocassette
26 min PIJ 1995 Disney
Bill Nye Series - Bill Nye Series. How fast does light travel? Light travels at 300,000 kilometers per second. What is the Great Red Spot on Jupiter? The Great Red Spot on Jupiter is a hurricane larger than the Earth. What is the name of the North Star? Where is it? The North Star is called Polaris. You can see it over the North Pole, at the end of Little Dipper's handle. Do meteorites hit the Earth? Ten tons of meteorites hit the Earth daily. Most are the size of a grain of sand.
Outer space—Exploration; Science(CK)

Pathways to the Stars

02708,VH VHS Videocassette
18 min IJS 1990 NASA
Discusses and shows planning for a mission to Mars. Shows the role of Spacestation Freedom in the manned trip to Mars.
Solar system; Space probes; Science(CK)

Planets & the solar system

06703,VH VHS Videocassette
23 min IJS 1999 Schlessinger Video Productions
Space Science in Action Series - "Students will learn the key characteristics of each planet, the difference between inner and outer planets, and which planets have their own moons.

They'll take a fascinating look at how remote-control rovers are designed to explore other surfaces in the solar system. Also, in a fun, hands-on activity, students will demonstrate how gravity keeps all the members of the solar system in orbit around the sun.

Gravity; Planets; Solar system; Space vehicles; Science(CK)

Preparing: Packaging for Spaceflight

07824,VH VHS Videocassette
18 min IJS 1983 NASA
Program describes how food is prepared for spaceflight.
Astronauts; Space vehicles; Science(CK)

Project Galileo: A Jovian Odyssey

02710,VH VHS Videocassette
4 min IJS 1989 NASA
Discusses the Project Galileo agenda and flight plan to Jupiter which will try to discover the origin of the solar system.
Planets; Space probes; Science(CK)

Science Screen Report

For descriptions see individual titles:
Voyagers Explor our Solar System

Shuttle Life in the World of Weightlessness

07827,VH VHS Videocassette
29 min PIJS 1987 NASA
Orbiting around Earth aboard the shuttle presents problems and opportunities in everyday living. Dr. Sally Ride explains life in a space shuttle. Suitable for primary if teacher narrates video.
Astronauts; Space vehicles; Science(CK)

Sky Above: A First Look

05974,VH VHS Videocassette
17 min P 2000 Rainbow Educational Media
A First Look At Series - The sky is the stars, planets and moon; it is the sun and clouds. The sky is everything above us. Students will get a great first look at our solar system - the earth and other planets that revolve around the sun. They will find out about the phases of the moon, how it orbits the earth and reflects the sun's light. They will understand that the sun is the solar system's source of heat and energy. Students will also appreciate that our sun is only one of many billions of stars in the Milky Way, and that the Milky Way is only one of many billions of galaxies in the universe.
Astronomy; Milky Way; Outer Space; Sky; Moon; Planets; Science; Solar system; Stars; Sun; Science(CK)

Solar System "A First Look"

05030,VH VHS Videocassette
15 min P 1998 100% Videos
In this creative production, two children are playing outside on a summer evening. They wish upon a bright star for a visit to all the planets and an imaginary trip on board a space ship results, giving factual information to the kids (and your class). i.e. Mars-red planet, polar caps, might have life. Also includes catchy poems to remember facts about each planet.
Astronomy; Planets; Solar system; Space science; Science(CK)

Solar System: Our Neighbors in Space

05001,VH VHS Videocassette
30 min JS 1995 Aims
The six Earth Science Essentials titles are part of AIMS Multimedia's "Survey of Science" interactive videocassette series. Use your VCR search feature to easily locate subject material within each program. An index of "chapters" (2-4 minutes each) appears at the beginning of the programs as well as in the accompanying study guides. After explaining the nebular theory of the origin of the solar system, this program takes a spectacular journey across the universe. Actual satellite and telescope photographs detail the geology,

Space Science

atmospheric composition, and moons of each of the nine planets.

Astronomy; Solar system; Space science; Science(CK)

Solar System Superlatives

05002,VH VHS Videocassette
25 min IJS 1996 York Films
Wonders of the Universe Series - The biggest, the smallest, the hottest, the coldest, the highest, the deepest. This tour of the record-breaking wonders of the solar system lets us marvel at the spectacular.

Astronomy; Planets; Solar system; Space science; Science(CK)

Space Camp Adventure

03482,VH VHS Videocassette
24 min JS
Story of the 6-day camp adventure showing various phrases of the visit to Huntsville.

Astronauts; Space science; Science(CK)

Space Exploration

07853,VH VHS Videocassette
26 min PIJ 1998 Disney
Bill Nye Series - Bill Nye Series. Is all the light in the night sky from the stars? No. Some light is from planets. What is the name of the instrument that we use for looking at stars and planets? Telescope. Is there air to breathe in space? No. Space is a vacuum. What is the name of the largest U.S. rocket used for space exploration? Saturn 5. [cc]

Space flight; Space science; Science(CK)

Space Exploration: The Next Frontier; Episode 12

03481,VH VHS Videocassette
15 min JS 1994 NASA
What's in the News Series - This program summarizes the most important ideas and scientific concepts from the preceding 11 programs and challenges students to dream about new possibilities in exploration.

Outer space—Exploration; Space science; Science(CK)

Space Science

For descriptions see individual titles:
Space Science: Planets

Space Science in Action

For descriptions see individual titles:
Planets & the solar system

Space Science: Planets

03001,VH VHS Videocassette
24 min IJS 1987 Coronet
Space Science Series - Drawing extensively on NASA's film collection this program will help young astronomers define: planet, moon, sun and solar system. Photographs and computer simulations offer a tour of the planets and their satellites.

Planets; Space science; Sun; Science(CK)

Space Shuttle - Return to flight

11091,DV DVD Cassette
49 min PIJS 2006 NASA
Lift off to Learning Series - Exciting & informative, seven-segment program describes NASA's Return to Flight preparation for the STS-121 launch. Each segment lasts approx. 7 minutes. The titles include: STS-114-The First Return to Flight Mission of Discovery, The Story of the External Tank, The Story of "Gap Fillers", Seeing the Big Picture, Preparing for STS-121, Test Flights All and Eye on the Prize.

Science(CK); Space flight; Space shuttles

Spacewatch

For descriptions see individual titles:
Journey into Space: From Sputnik to the Space Shuttle

Sputnik 1949-1961

07918,VH VHS Videocassette
52 min IJS 1994 Nugus/Martin Productions, LTD
Cold War Series - In the mid-50's, the Soviet Union seems to be forging ahead. In October 1957, the first Soviet satellite orbits the earth - to the dismay and fear of the United States, frustrated by its own ineffectual space program. In 1961, the Soviets launch Yuri Gagarin into space. America will have to meet the challenge.

Soviet Union—History; Space flight; Social studies(CK)

Stargazing

06343,VH VHS Videocassette
25 min I 2004 United Learning
In this galactic adventure, students travel to the moon and planets and gaze beyond our solar system. The Moon: Past and Future: Explores the origin of our nearest neighbor in space. Space Travel: Demonstrates how recent scientific advancements are making space travel easier and less costly. The Inner Planets: Highlights the unique qualities of the four planets closest to the sun. The Hubble Space Telescope: Focuses on the inner workings of an innovative tool.

Hubble Space Telescope (Spacecraft); Moon; Planets; Space flight; Science(CK)

Sun, Earth and Moon

04760,VH VHS Videocassette
30 min I 1992 Films for the Humanities
This program looks at how many of our natural cycles of time are governed by the positions of these three bodies in space. The program provides the answers to many difficult questions that have puzzled leading scientists for thousands of years.

Space and time; Science(CK)

Supporting Life in Space

07834,VH VHS Videocassette
3 min IJ 1990 NASA
How will life be supported on long shuttle flights? How will food and water supplies be replenished? This video looks at experiments on solving these problems.

Space probes; Space vehicles; Science(CK)

Tethered Satellite: Physics & Physical Science

11098,DV DVD Cassette
41 min S 1997 NASA
Lift off to Learning Series - Part 1: Tethered Satellite Forces & Motion describes the tethered satellite concept & shows how the satellite is deployed & extended in space. The mathematics describing the forces acting on the tethered satellite/Space Shuttle orbiter system is presented. Part 2: Electrical Circuits in Space: The electrostatics of the Tethered Satellite demonstrates how the tethered satellite and the Space Shuttle orbiter interact with Earth's magnetic field to produce an electric current. Future applications of the tethered satellite/Space Shuttle orbiter system as a motor are described.

Science(CK); Life science; Satellites; Space shuttles

Toys in Space I

03472,VH VHS Videocassette
18 min JS NASA
Astronauts on space shuttle missions use the laws of physics to demonstrate how toys perform in microgravity.

Space science; Space shuttles; Science(CK)

Toys in Space II

03473,VH VHS Videocassette
37 min JS 1993 NASA
Astronauts in Space Shuttle mission STS-54 use the laws of physics to demonstrate how ten toys perform in microgravity. The featured toys include swimming fish, frog and submarine, balloon, gyroscope and graviton, friction-engine car and circular track, magnetic marbles, rat stuff, the flipping mouse, basketball and hoop, and paper boomerang.

Space science; Space shuttles; Science(CK)

Universe: Vast reaches of space

07226,DV DVD Cassette
26 min IJS 2006 Discovery Channel
Explore outer space: Visit the Milky Way and other types of galaxies, light-years and the life cycles of stars, black holes, and matter. Discover the Big Bang theory and how the Doppler effect illustrates the constant expansion of the universe.

Big bang theory; Milky Way; Outer Space; Universe; Science(CK)

Viking on Mars

07829,VH VHS Videocassette
16 min IJS 1975 NASA
Discusses Mars as seen by the Mariner and Viking missions. Early astronomers' views are presented along with those of present day astronomers. A tour of Mars and the landing of the two Viking Landers are also covered.

Planets; Space probes

Voyagers Explor our Solar System

02849,VH VHS Videocassette
13 min JS 1991 Allegro Productions
Science Screen Report Series - In 1977, the four giant outer planets in our solar system aligned so that Voyager 1 and 2 could explore each on a single trip. Carrying cameras, computers, sensors -and propelled in part by gravitational forces, the Voyagers unveiled fascinating new information about Jupiter's giant red spot and Saturn's intricate rings.

Solar system; Space probes; Voyager Project; Science(CK)

What's in the News

For descriptions see individual titles:

Eyes in the Sky: Astronomy
Episode 2
Space Exploration: The Next
Frontier; Episode 12

What's Out There: Exploring our Solar System

02701,VH VHS Videocassette
17 min IJ 1987 Rainbow Educational Media
Video presents the creation of the Milky Way, the make-up of the sun and the planets. Spectacular NASA footage shows close-up detail of the Sun and each of the planets explored by space probes.

Planets; Solar system; Space probes; Science(CK)

Wonders of the Universe

For descriptions see individual titles:

Solar System Superlatives