Kenmore-Tonawanda Union Free School District
1500 Colvin Blvd
Buffalo, NY 14223-3119

Science - Astronomy

Options	Standards	Essential Questions	Content	Skills	Suggested Resources	Assessment	Resources
		Green is common to both High Schools Blue is Kenmore East Red is Kenmore West					
		Scale of the Universe and It's Origin					
		What is cosmology? How does cosmic background radiation support the Big-Bang Theory? Why do astronomers theorize that most of the matter in galaxies and clusters of galaxies is dark matter? What does the Big Bang Theory propose?	Models of the Universe Our Galaxy, the Milky Way The Dimensions of the Milky Way Our Position in the Galaxy Discovering Other Galaxies Classification of Galaxies Formation of Our Solar System The Big Bang Model	Illustrate the inferred shape of our galaxy and our position in the galaxy. Plot, interpret, and analyze data regarding Galactic distance and predicted speed. Illustrate the formation of the solar system. Compare the distances between stars and planets. Compare and contrast the different theory models for the formation of the Universe.	**Cosmic Voyage (Video)** Cosmic Voyage (An IMAX film narrated by Leonard Nimoy), takes students on a trip through through outer space by focusing on the size of our solar system, galaxy, and universe. It also shows students inner space - what can be found inside of a single atom. Worksheet is true false and fill in the blank - video is 45 minutes long. **Bill Nye the Science Guy (Outer Space Video)** 15 question true / false and fill in the blank quiz to		Astronomy 2009 Opening Day Assignment.doc Bill Nye Outer Space Video Quiz.doc BlaineHubbleFotos.pps Cosmic Voyage Video.doc Cosmic Voyage Video.doc Nasascavengerhunt.doc

					accompany Bill Nye episode of the same name. **Spacecraft Exploration of the Solar System / Scavenger Hunt** - 49 question fill in the blank computer scavenger hunt focused on the spacecraft that have explored our solar system and beyond.		
		Ancient and Modern Astronomers					
		Why is it important to study ancient astronomers Did religion help or hinder the field of Astronomy How can the ideas of early astronomers be considered breakthroughs to the science of astronomy?	Aristotle Ptolomy Copernicus Tycho Brahe Galileo Kepler Newton Einstein Sagan Hawking	Identify the key contributors to the field of Astronomy, their place in history and their biggest contribution to the field. Summarize the principle of retrograde motion Describe the heleocentric model Compare and contrast the Copernicus Model with Ptolemy's Model Compare and contrast the Heliocentric model of the Universe with the Geocentric Model of the Universe. Explain the 3 Laws of Planetary Motion	**Aristotle and Ptolemy - Early Astronomers (PowerPoint) -** Presentation covers the heliocentric and geocentric models of the solar system, and the evidence used by Aristotle and Ptolemy to support their views. **Astronomy in the Middle Ages - Copernicus, Brahe, and Kepler (PowerPoint) -** Presentation covers the heliocentric model, and the evidence used to support it by each of the above mentioned scientists. **What was life like in the**		Aristotle and Ptolemy.ppt Aristotle and Ptolemy.ppt handouts.ppt Astronomers Quiz 2009.doc Astronomers Quiz.doc Astronomy in the Middle Ages.revised.notes 3.ppt Astronomy in the Middle Ages.revised.ppt notes2.ppt Galileo Galilei powerpoint.ppt Galileo Galilei revised.pptnotes.ppt galileo picture.doc galileo trial doc.doc galileo's recantation.doc Heliocentric.doc History of Astronomy Scavenger Hunt.doc Johannes Kepler.doc Judge.doc Kepler1.doc Late middle ages for assignments.doc Old Dead Guys - Ancient Astronomers Project.doc Old Dead Guys 2.doc Old Dead Guys 3 (Astronomers).doc Old Dead Guys 3A (Astronomers).doc Old Dead Guys 4 (Astronomers).doc

					middle ages? (activity) - Questions focused on illustrating daily life in the middle ages. Access to a computer or research books is a necessity. **Galileo Galilei - Astronomy Enters the Modern Age (PowerPoint) -** Presentation focused on the life of Galileo, and how through his observations and persistent world view people of the middle ages came to accept the heliocentric theory originally put forth by Copernicus. **Aristotle and Ptolemy - Early Astronomers Note Sheet** - Student note sheet to go along with PowerPoint presentation of the same name. **Astronomy in the Middle Ages - Copernicus, Brahe, and Kepler Note Sheet -** Student note sheet to go along with Powerpoint presentation of the same name. **Galileo Galilei - Astronomy Enters the Modern Age Note Sheet -**		Old Dead Guys 5 (Astronomers) 2.doc Old Dead Guys 5 Powerpoint (Astronomers).doc Witness&Lawyer.doc

					Student note sheet to go along with PowerPoint presentation of the same name. **Study Guide Astronomers -** Review sheet for astronomers unit. Covers the geocentric and heliocentric models. Includes a list of astronomers and their major accomplishments. **Quiz on Ancient Astronomers -** 15 question multiple choice quiz		
		Tools of Celestial Observation					
			Light Year	State the various locations of Radio Telescopes throughout the world. State what the Deep Space Network is. Define the term light year Identify why the term parsec is used in Astronomy			_Mars Powerpoint Notes.ppt Magic School Bus Space Video Sheet.doc Mars - Journey to Video (Alan Alda).doc Mars Boot Camp Quest. Oct. 2001 Pop Science.doc Mars Dead or Alive Video Sheet.doc Mars Powerpoint Notes.ppt Mars Rover Activity.doc Mars Test.doc Planet Lab - Size Matters 2009.doc Planet Project 2009 Astronomy.doc Planet Project 2010 Astronomy.doc Planet Project Geology and Alien Life Form Paper.doc Planet Project Spaceship 3 paragraph paper.doc Planets - and then there was Voyager (Video).doc Planets - Venus and Mercury.pptNOTES.ppt

							Pluto Powerpoint 2009.ppt Pluto Powerpoint Notes.doc Pondering the planets.doc
		The Stars					
		How do stars differ?	Classification of Stars Spectral Analysis of Stars	Identify 4 types of Stars Classify Stars according to their spectral colors			History of Rockets.ppt October Sky Worksheet.doc Rocket Test 2007.doc RocketRevSht.doc
		How do stars evolve?	The Evolutionary Cycle of Stars Black Holes Worm Holes	Explain how stars are formed Describe a black hole What are the effects and causes of a worm hole?			
		What is the relationship between space and time travel?	Space and Time travel	Explain how time travel could be possible?			
		The Planets and Other Celestial Bodies					
		Why are there so many differences in the planets in our solar system? Why is it important to explore other planets? How does a planet's environment and geographic features influence the technology needed to explore the planet? What	Mars a. Martian Exploration (Past, Present, Future) b. Martian Life-Fact vs. Fiction Mercury Venus Earth and Moon Jupiter a. Io b. Callisto c. Ganymede d. Europa e. Exploration (Past, Present, Future)	Correctly use formulas to convert AU/Km/Miles Correctly use formulas to convert Farenheit/Celsius/Kelvin Interpret the ESR Table and apply information to questions about the given data on solar systems Describe problems that astronauts could encounter during a trip to Mars Summarize the features that allow Earth to sustain life. Design a life form that could survive the features and properties on a given planet.	**And then there was Voyager... (Video)** - Goto First Class Video produced by Holiday Films focuses on the launch of Voyager 1 and Voyager 2, and the findings of these two space missions launched back in 1977. Worksheet contains 9 fill in the blank questions. **Pondering the Planets (Worksheet)** - Goto First Class You need the		Apollo Project Question Sheet.doc apolloproject2007-2008.doc From Earth to Moon 1&2.doc From the Earth to the Moon 10.doc From the Earth to the Moon 3&4.doc From the Earth to the Moon 5&6.doc Gemini Mercury Quiz Review.doc Mercury Gemini Test 2007-2008.doc Mercury Program.doc NASA's New Moon Rockets.ppt RaceToSpaceGdNotes.doc Space Shuttle & ISS Test 2009-2010.doc Space Shuttle 2 ppt..ppt Space Shuttle

		adaptations would be needed to live on other planets?	Saturn Uranus Neptune Pluto Exosolar Planets Phase of Moon Tides Moon surface, geology, age of surface, crater formation Eclipses: Lunar and Solar Mars a. Phobos b. Diemos	Support the reason for each of the characteristics given to the "created" life form, in terms of surviving and adapting to conditions on the planet. Identify various technologies used to explore space in the past and present. Accurately represent scaled objects of the solar system Classify a planet based upon its characteristics Describe methods for grouping planets and give examples of planets in each group. Describe properties and features common to the Jovian planets. Describe the properties and features common to the terrestrial planets. Identify features or properties of individual planets that are unusual. Define satellite and identify two planets with no satellites. Identify the moons of specific planets. Name the inner planets and describe their arrangement and orbits in the solar system. Compare and contrast Earth with the other terrestrial planets. Compare and contrast the structures and atmospheres of the outer planets with those of the inner planets.	"Handy Space Answer Book" in order to do this worksheet. 52 questions covers all of the 9 planets. Fill in the blank. **Planet Project** - Goto First Class This project is meant to span 3-4 weeks, with approximately 2 days of library or computer lab time scheduled into each week during the classroom period. Students have to research one planet and find specifics about its geology, and atmospheric composition. They then have to design an "alien", and create a travel brochure for their planet. Classroom activities should coincide with the project to further understanding. Rubric included with grade sheet. **Walking Through a Scale Model of Our Solar System (Lab) -** Goto First Class Illustrates to students how far apart the planets are, on a scaled down solar system that the instructor has to set up on the school grounds. Students also have to calculate distances to other objects such as Proxima Centauri		Discovery.pps Space Shuttle Enterprise.ppt Space Shuttle Quiz 2.doc Space Shuttle Quiz Review Sheet.doc Space Shuttle Quiz.doc Space Shuttle STS-1 Columbia worksheet.doc Space Shuttle Video - Discovery Channel.doc SpaceRace!.ppt Yurigagarin.doc

(the next closest star to us after the Sun).

Other Worldy Weights (Lab) - Goto First Class
This activity allows students to calculate how much they would weigh on each of the other 8 planets (yes, we are including Pluto), and then check their answers using a website that automatically calculates how much they would weigh on other objects in the universe as well.

Size Matters (Lab) - Goto First Class
Given a data table of planet diameters, students calculate a scaled down version of the solar system, and then draw each of the nine planets using a compass. Questions follow about planet sizes compared to earth, and a calculation of the scaled down size of the sun is required. Lab coincides with the "Planet Project".

Mars Notes (Powerpoint) - Goto First Class
Presentation about geology, atmospheric conditions, evidence of water, size

compared to earth, distance from sun, and mythological connections. Good introduction for unit that focuses on mars as next logical destination for human exploration.

Lost in Space / Out of this World! (Video) - Goto First Class 2 episodes of the Magic School Bus. Take a field trip through our solar system with Ms. Frizzle. Discover facts about the 9 planets in Lost in Space, and learn about asteroids, meterorites, and comets in Out of this World! Video worksheet contains 30 questions.

Pluto: Planet or Not? (Powerpoint) - Goto First Class Powerpoint presentation which focuses on the possible origin of the planet, how and who discovered it, why it is named as such, and why it is classified now as a "Dwarf Planet". Pluto's moons are also mentioned, as well as "New Horizons" - the spacecraft launched in 2006 that will arrive and flyby Pluto in

2015.

Pluto: Planet or Not? (Guided Notes) - Goto First Class
Guided note sheet for students to use while following along with Powerpoint by the same name.

Mercury and Venus (PowerPoint) - Goto First Class
Presentation focuses on planet geology, moons, atmospheric conditions, and mythology.

Mercury and Venus PowerPoint (Notes) - Goto First Class
Guided note sheet for students to follow along with PowerPoint presentation of same name.

Mars Facts and Exploration (PowerPoint) - Goto First Class
Presentation focuses on general Mars facts, topography, weather, exploration, mythology, and evidence of past water.

Mars Facts and Exploration

PowerPoint (Notes) - Goto First Class
Guided note sheet for students to fill in as they follow along with PowerPoint presentation of the same name.

Journey to Mars with Alan Alda (Video) - Goto First Class
21 question true / false and fill in the blank video guide that follows along with video of the same name (produced by Scientific America). Video is about the process of designing a mission to Mars and the planning involved in preparation of long duration spaceflight. The launch, flight, landing and return from the Red Planet is focused on, as well as how astronauts will keep in shape over the 2 1/2 year mission.

Mars Boot Camp (Article) - Goto First Class
Article from Popular Science magazine (October 2001) about preparing for a misson to Mars. The focus of the article is Devon Island, which is a polar desert location with a simulated

Mars base built there. Growing food, recycling of waste water, and traveling across the polar desert are all topics of interest to future Mars explorers.

Mars Boot Camp Article (Questions) - Goto First Class
5 questions focused on article of same name

Mars Dead or Alive (Video - NOVA) - Goto First Class
15 question sheet to go along with video of the same name. Production focuses on the Spirit and Opportunity rovers that landed on the Red Planet in 2004. Planning, building, launching, landing, and the returning of data are all spotlighted in this 50 minute presentation. - EXCELLENT VIDEO!!!

Mars (Test) - 2 different versions - Goto First Class
2 different versions of a test on Mars are offered in the First Class folder. 37 or 60 questions depending on the test given.

Designing a Mars Rover - Goto First Class

					Students will consider the type of surface transportation that would be necessary for a mission to Mars. They will also think about ways to overcome the challenges to exploration presented by the characteristics of the Martian surface and its surrounding space.		
		Space Exploration					
		What would our perceived place in the universe be without space exploration?	A. The Birth of Rockets . The Start of the Cold War a. Sputnik I b. Sputnik II c. Sputnik III II. Intercontinental Ballistic Missiles a. Uses b. Fears Prototype Rockets of the Future I. (Log onto www.NASA.gov for the latest information on this topic) III. The Creation of NASA a. Who created the agency b. Why it was created . Pioneers of Rocket Travel I. Uses for rockets II. Rockets as	Recognize and discuss the early Soviet contributions in the race towards space List the contributing factors that led to the creation of NASA Identify and summarize the contributions of the early pioneers of rocket travel Compare and contrast solid fueled and liquid fueled rockets Explain the historical importance of solid fueled rockets in both ancient and modern cultures Label the parts of a rocket Recognize and illustrate the phases of flight Describe and discuss prototypes of rockets and their benefits to the U.S. Space program and it's economy	**Race to Space PowerPoint)** - Goto First Class Presentation covers start of Space Race with launch of Sputnik, looks at the reason NASA was formed, and then focuses on Yuri Gagarin and Alan Shepard (the first Soviet, and the first American in space). Project Mercury and Project Gemini are introduced to the students, with the anticipation planted of the first Apollo landing on the moon. **Race to Space Guided Notes** - Goto First Class Guided note sheet to follow along with PowerPoint presentation of the same name. **Robert Goddard and the**		Apollo Project Question Sheet.doc apolloproject2007-2008.doc From Earth to Moon 1&2.doc From the Earth to the Moon 10.doc From the Earth to the Moon 3&4.doc From the Earth to the Moon 5&6.doc Gemini Mercury Quiz Review.doc Mercury Gemini Test 2007-2008.doc Mercury Program.doc NASA's New Moon Rockets.ppt RaceToSpaceGdNotes.doc Space Shuttle & ISS Test 2009-2010.doc Space Shuttle 2 ppt..ppt Space Shuttle Discovery.pps Space Shuttle Enterprise.ppt Space Shuttle Quiz 2.doc Space Shuttle Quiz Review Sheet.doc Space Shuttle Quiz.doc Space Shuttle STS-1 Columbia worksheet.doc Space Shuttle Video - Discovery Channel.doc SpaceRace!.ppt Yurigagarin.doc

weapons
III. Founders of spaceflight
a. Konstantin Tsiolkovsky
b. Dr. Robert Goddard
c. Hermann Oberth
d. Wernher von Braun

C. Types of Rockets

I. Solid Fuel Rockets
II. Liquid Fuel Rockets

I. Anatomy of Rockets
a. Rocket parts
b. Phases of Flight
1. Launch
2. Flight
3. Burnout
4. Peak Altitude
5. Descent
6. Touchdown
c. Forces that affect Flight
1. Drag
2. Thrust
3. Gravity

Adventure of Space Exploration (Video)- Goto First Class
20 true / false and fill in the blank questions that follow along with the video entitled "Rocketmen" by the Discovery Channel. Covers the life of Robert Goddard and Wehrner Von Braun, as well as the United States Space Program culminating with the manned lunar landing.

Flight Phases of a Rocket / Anatomy of a Rocket (Handout) - Goto First Class
Student handout focused on parts of a rocket, and their normal flight path post-launch. A primer for students prior to building their own rockets.

History of Rocketry (PowerPoint) - Goto First Class
PowerPoint presentation that covers the history of rockets, including rocketry founders Konstantin Tsiolkovsky, Robert Goddard, Hermann Oberth, and Wernher von Braun.

History of Rocketry PowerPoint (Notes) - Goto First Class
Guided note

sheet for students that follows along with PowerPoint presentation of the same name.

The History of Rocketry (General Notes) - Goto First Class
Notes to hand out about rocket history - same stuff covered in PowerPoint of same name. Word file.

Aerospace Technology - Model Rocketry (Video) - Goto First Class
7 fill in the blank questions to follow along with video of the same name. 14 minutes
Covers parts of a rocket, forces that affect a rocket, and how to build a model rocket.

History of Rockets (Review) - Goto First Class
Fill in the blank review sheet for unit on rockets and their creators.

Rocket Review Sheet - Goto First Class
30 question fill in the blank review sheet for unit on rockets. Diagram labeling required.

Rocketry (Test) - Goto First Class
45 multiple choice question test on rocket history, scientists that created them,

					model rocket building, and videos viewed in class.		
		History of Manned Spaceflight					
		How would life be different if the U.S. was not the first country to land a manned space craft on the Moon? What is it about the human spirit that allows us to continue space exploration in the face of disaster?	A New Beginning - The American Shuttle Program a. Challenger Disaster b. Columbia Disaster c. Future of the Shuttle? Early Pioneers I. Early Manned Soviet Flight a. Yuri Gagarin II Early Manned American Flight a. Alan Shepard b. John Glenn American Space Programs a. The Mercury Program 1. The Mercury Seven b. The Gemini Program 1. The New Nine c. The Apollo Program 1. Apollo 1 Disaster 2. Apollo 8-17 Highlights 3. Apollo 13 Near Disaster	Evaluate the contributions of early space flight pioneers Construct time-line of historical space exploration Explain the importance of being the first country into space and the financial impact on that country Investigate the causes of space disasters and near space disasters Compare and contrast the technology of the various rockets in the US and Soviet space programs Justify or criticize the existence of the U.S. Space program and make a recommendation for the future	**Flight of STS-1 (Space Shuttle Columbia)** - A computer worksheet activity that looks at the first flight of the space shuttle in 1981. **The Space Shuttle (Video)** - This worksheet follows along with the video of the same title. The video was produced by the Discovery Channel, and looks at the process of getting a shuttle ready for launch. **Review Sheet for Space Shuttle Quiz** - A worksheet with 16 questions that focuses on the main points touched on in class in regards to the space shuttle and the disasters associated with its launch. **The Space Shuttle (Quiz)** - 19 question quiz on the space shuttle and its required hardware. **Space Shuttle**		Answers' space raceAmericasFuture.doc Article generic.doc Article Summary.doc Everyone's Space Preview Questions.doc Everyone's Space Viewing Guide.doc Inside the Space Station Video.doc Inside the space station.doc ISS Quiz.doc ISS Space Station Lab 2009-2010 rewrite.doc ISS Space Station Lab.doc ISS Worksheet.doc NASA Spinoff Powerpoint.ppt NASAspinoffs.doc Space Shuttle & ISS Test 2009-2010.doc Technology we have today NASA.doc

Columbia (Powerpoint) - Powerpoint presentation put to music by the band Rush - song is entitled "Countdown", and it tells the story of the first space shuttle launch. You need to play the song from a disc however while clicking through the presentation yourself.

Space Shuttle Discovery (Powerpoint) - Powerpoint illustrating process of readying the shuttle for launch.

Space Shuttle Enterprise (Powerpoint) - 1 slide showing Enterprise, and how it got its name.

Race to Space (PowerPoint) - Presentation covers start of Space Race with launch of Sputnik, looks at the reason NASA was formed, and then focuses on Yuri Gagarin and Alan Shepard (the first Soviet, and the first American in space). Project Mercury and Project Gemini are introduced to the students, with the anticipation planted of the first Apollo landing on the moon.

Race to Space Guided Notes - Guided note sheet to follow along with PowerPoint presentation of the same name.

From the Earth to the Moon - Parts 1,2,3,4,5,6,10 (Video Quizzes) - An absolute MUST SEE for any astronomy instructor or student! A 12 part mini-series directed by Tom Hanks about America's race to the moon (NOT A DOCUMENTARY - a 12 hour MOVIE). Series covers the Mercury, Gemini, and Apollo Programs. Each quiz is true / false or fill in the blank, with a minimum number of questions for a maximization of student interest to keep attention focused on the film.

Space Capsule found in Ocean after 38 Years (Article) - News article about the discovery of Gus Grissom's Mercury space capsule named the Liberty Bell 7 at the bottom of the Atlantic Ocean. Capsule sank upon splashdown, and Grissom nearly

drowned. Gus Grissom later did die aboard Apollo 1 when it caught fire on the launchpad during a routine plugs-out test in 1967.

The Life of Yuri Gagarin - 55 question computer worksheet on Yuri Gagarin with websites. Gagarin was the first person in space (Soviet).

The Mercury Spaceflight Program 54 question fill in the blank worksheet. Answers can be found in The Handy Space Answer Book, or searched on-line.

The Gemini Space Program -

50 question fill in the blank worksheet. Answers can be found in The Handy Space Answer Book, or searched on-line.

John Glenn - Warrior, Astronaut, Politician Movie Guide (Video) - 25 question fill in the blank movie guide for students to follow along with video.

Review on

Mercury and Gemini Space Programs - 19 answers are given, and the students have to come up with the 19 questions that they originated from by using their notes. Review sheet focuses on Mercury and Gemini Space Programs, and the sheets that were completed using The Handy Space Answer Book.

The Apollo Missons to the Moon (Project) - An individual project, requiring students to focus on one (1) Apollo moon mission, and design a poster around it. Mission objectives, vehicles used, astronauts involved, and historical findings are all required research. Project expectations along with grading rubric included.

Apollo Moon Project Question Sheet (Review / Culminating Activity) - Students must write 5 questions, whose answer can be found on their tri-fold project board regarding whatever moon mission they were

					assigned. These questions will then be placed in front of their project board for other students to view and obtain answers for. **Apollo Project Questions (Review / Culminating CLASS Activity) -** Student culminating activity for Apollo Moon Project. Students must write the answers to each of the 5 questions posed by their fellow students in regards to their assigned moon mission. 15 project topics included in packet. **Mercury, Gemini, Apollo, and Moon Hoax Theory (Test) -** 61 question multiple choice test on all of the above topics.		
		International Space Programs and Commercial Spinoffs					
		Can countries with differing goals and financial interests work together to construct a functioning manned outpost in space? Should the	A. Skylab - America's First Space Station B. Mir - The Soviet Outpost The International Space Station I. Countries involved II. Scientific Research	Recognize and explain the historical importance of former orbiting space posts Research products commercially available today and compare its current use to its original application in the space program Conduct a cost benefit analysis of the US Space program and relate data to the overall	**Inside the Space Station (Video) -** A worksheet to go along with the Discovery Channel DVD. **Inside the Space Station (Notes) -** Notes taken from the Discovery		ApolloProjectSummary.doc Moon Hoax Question Sheet.doc Roswellplus50.doc

		U.S. and countries around the world be spending large amounts of money on space programs when there are more pressing needs here on earth?	Onboard III. Commercial Spinoffs IV. Cost to the American Taxpayer The Future - What Does it Hold?	federal budget Compose a letter to your legislators in support or opposition to current space policy Formulate and defend personal opinion about human space exploration should continue and describe which planetary body based on current technological/political/economic factors What inspires someone to become an astronaut?	Channel DVD - a handout for students to get after watching the movie. **International Space Station (Lab) -** Lab focuses on who build the International Space Station, the order in which the components were brought up to space in the space shuttle, and when and where to see the space station for yourself here on earth. **International Space Station Lab (Quiz)** - 10 question quiz based on the International Space Station Lab. **Technology We Have Today, Due to Advances by NASA** - A worksheet that asks students to research 5 products that have become commercially available due to NASA technology utilized in the US space program. **Spinoffs - Commercialized NASA Technology** - A worksheet that looks at the definition of a "Spinoff", and what criteria need to be met in order for a product to		

qualify.

Inside the Space Station (Video) - A worksheet to go along with the Discovery Channel DVD.

Inside the Space Station (Notes) - Notes taken from the Discovery Channel DVD - a handout for students to get after watching the movie.

International Space Station (Lab) - Lab focuses on who build the International Space Station, the order in which the components were brought up to space in the space shuttle, and when and where to see the space station for yourself here on earth.

International Space Station Lab (Quiz) - 10 question quiz based on the International Space Station Lab.

Technology We Have Today, Due to Advances by NASA - A worksheet that asks students to research 5 products that have become commercially available due to NASA technology utilized in the US

space program.

Spinoffs - Commercialized NASA Technology - A worksheet that looks at the definition of a "Spinoff", and what criteria need to be met in order for a product to qualify.

The International Space Station / Spinoffs / Cosmic Voyage (Quiz) - A quiz that covers each of the three outlined topics mentioned in the title.

International Space Station (Worksheet) - Worksheet focuses on building of space station.

The International Space Station / Spinoffs / Cosmic Voyage (Quiz) - A quiz that covers each of the three outlined topics mentioned in the title.

International Space Station (Worksheet) - Worksheet focuses on building of space station.

NASA Spinoffs

(Powerpoint) - Presentation shows what a "Spinoff" product is, and how they qualify for such distinction.

Everyone's Space - Preview Questions - Preview questions for students to answer before viewing "Everyone's Space". DVD is available at www.izzit.org, along with a FREE viewing guide (which is where these questions came from). Presentation is 17 minutes long, and talks about the X-Prize and how as a society we are progressing toward space travel for everyone.

Everyone's Space - Viewing Guide - Questions for students to answer while viewing "Everyone's Space". DVD is available at www.izzit.org, along with a FREE teacher's guide (which is where these questions came from). Presentation is 17 minutes long, and talks about the X-Prize and how as a society we are progressing toward space

					travel for everyone		
		Astronomical Hoaxes and Conspiracy Theories					
		What will be the impact on worldwide religions if life other than our own is found exist in the universe? What if the conspiracy theorists are right and we really didn't land on the Moon?	A. Did We Land on the Moon? I. Falsified Photographs? II. Untimely Deaths? III. Radiation Sickness? IV. A Technological Impossibility? V. Capricorn One - Fact or Fiction? VI. Other unexplained "Evidence". UFO's I. Sightings II. Recovered "Evidence" III. Weapons of War?	Evaluate historical accounts and conspiracy theories of space exploration and space invasion Distinguish between good science and junk science as related to the question of "Did we land on the Moon?" Explore various reports of UFO sightings for scientific validity or lack thereof Recognize how the field of parapsychology and the media have contributed to the increase of UFO sightings over the past decades	**Did We Land on the Moon? A Debunking of the Moon Hoax Theory -** 19 questions to ponder and think about after unit on Apollo Lunar missions has been completed. Computer activity that allows students to research "lunar landing hoaxes", and draw their own conclusions as to whether or not man really did land on the moon. **Moon Sheet -** Computer worksheet on lunar missions, their findings, and general moon facts. The theories regarding the origin of the moon are also touched on, as well as different lunar geological features discovered by the astronauts that visited there. **Roswell Plus 50 - Popular Science (Article) -** Magazine article which offers a more "earthly" explanation as to why UFO		

					sightings have been prevalent over the past 50 years or so. **Roswell Plus 50 - Question Sheet -** 37 question fill in the blank sheet that follows along with article of the same name.		

Last updated: 7/19/2011