

Image ID	Image Desc	Credit	Page
C100-01P-	Chapter Opener: PhD scientist Ian Bartholomew using dye tracing techniques as part of a study to measure the speed of the Russell Glacier near Kangerlussuag, Greenland. The study is looking at how increasing quantities of melt water caused by climate change are affecting the glacier's speed, which like most glaciers in Greenland has speeded up considerably in the last 20 years. It is thought that the meltwater helps lubricates the glaciers base enabling it to flow faster. As part of the study reflective poles were drilled 4 meters into the ice to measure their speed at various positions on the glacier. Within a month all the poles had fallen over as the glacier melted down over 4 meters.	Ashley Cooper/Woodfall Wild Images/Photoshot	NOS 2-3
C100-02P-	Two female students train at fire academy	Thomas Del Brase/Getty Images	NOS 4
C100-03P-	R.I. Tilling takes a sample of molten "Aa" lava from a flow on Mauna Ulu. He is wearing special clothing to protect him from the heat.	Roger Ressmeyer/CORBIS	NOS 5
C100-04P-	Geoff York, a USGS biologist, prepares a radio collar while Katrina Knott, research assistant, paints an ID number on the back of a polar bear (Ursus maritimus). The ID number is to make it easy to see from the air that the bear was captured already.	Daniel J. Cox/CORBIS	NOS 5
C100-05P-	A medicinal chemist prepares a set of test tubes containing organic compounds for further analysis in a drug discovery and development project. She is aided by a robot, which handles the tubes automatically (robot arm seen to the right of the picture). Safety goggles and disposable gloves protect her from the possible hazards of the organic compounds and solvents she is handling.	Medicimage/PhotoLibrary	NOS 5
C100-06P-	Close-up of cochlear implant in deaf White girl's ear	Michael Newman/PhotoEdit	NOS 8
C100-08P-	Artwork of the solar system with planetary orbits	DETLEV VAN RAVENSWAAY/SCIENCE PHOTO LIBRARY	NOS 9

C100-09P-	Hispanic JH girl wearing goggles uses mercury thermometer to measure temperature of water in test tubes during science experiment at school	Bob Daemmrch/PhotoEdit	NOS 11
C100-100P-	Students pouring sand through strainer	Hutchings Photography/Digital Light Source	NOS 21
C100-101P-	Student measuring owl pellet	Hutchings Photography/Digital Light Source	NOS 31
C100-102P-	Barn owls	Ted Mead/Photolibrary	NOS 31
C100-103P-	Student dissecting an owl pellet	Hutchings Photography/Digital Light Source	NOS 31
C100-10P-	A geologist photographs a pahoehoe flow advancing from the Mauna Ulu eruption.	CORBIS	NOS 14
C100-11P-	Petunias (<i>Petunia hybrida</i>) with a rain gauge	Pixtal/SuperStock	NOS 17
C100-12P-	Scene s of crime officer prepares to take a mold from a footprint UK	By Ian Miles-Flashpoint Pictures/Alamy	NOS 18
C100-13P-	Laboratory flasks and blue liquid	Aaron Graubart/Getty Images	NOS 18
C100-14P-	Scientist Using Laptop and Examing Genetically Modified Corn	Steve Cole/Getty Images	NOS 19
C100-15P-	Close-up of a pair of binoculars against a grey background	CORBIS	NOS 21
C100-16P-	Magnetic Compass	The McGraw-Hill Companies, Inc./Jacques Cornell photographer	NOS 21
C100-17P-	Anemometer and wind vane. This anemometer uses cup-shaped vanes to catch the wind. These rotate and trigger a reading of wind speed. The vane (center left) shows the direction of the wind. The compass directions show the wind direction to an observer. Regular data on wind speed and wind direction is required not only by meteorological stations throughout the world, for general forecasting and weather records, but specifically by airport and marine authorities, civil engineers and contractors on major projects, farmers, sport and other outdoor event promoters, vacation tour operators, resort managers and many others. This anemometer is manufactured by Munro.	Paul Rapson/Photo Researchers, Inc.	NOS 21
C100-18P-	pyrite with streak plate	Mark Steinmetz	NOS 21

C100-19P-	Ötzi (Iceman) as discovered, 1991.	Landespolizeikommando für Tirol/Austria	NOS 2
C100-20P-	Figure of Otzi (Iceman) as he would have appeared wearing grass cloak	South Tyrol Museum of Archaeology, Italy (www.iceman.it)	NOS 2
C100-21P-	Figure of Otzi (Iceman) as he would have appeared wearing bearskin coat	South Tyrol Museum of Archaeology, Italy (www.iceman.it)	NOS 2
C100-22P-	Equipment carried by Otzi (Iceman) - axe	South Tyrol Museum of Archaeology, Italy (www.iceman.it)	NOS 2
C100-23P-	Equipment carried by Otzi (Iceman) - dagger and sheath	South Tyrol Museum of Archaeology, Italy (www.iceman.it)	NOS 2
C100-24P-	Equipment carried by Otzi (Iceman) - arrows and quiver	South Tyrol Museum of Archaeology, Italy (www.iceman.it)	NOS 2
C100-25P-	Shoe worn by Otzi (Iceman)	South Tyrol Museum of Archaeology, Italy (www.iceman.it)	NOS 2
C100-27P-	Micrograph of hop hornbeam pollen found Otzi's (Iceman) gut	Klaus Oeggl	NOS 2
C100-28P-	Erosion with slumped edge of field on bank of River Usk Llanfoist Wales UK	Chris Howes/Wild Places Photography/Alamy	NOS 6
C100-30P-	Astronauts prepare for launch of the STS 72 shuttle at Cape Canaveral in Houston Texas	john angerson/Alamy	NOS 8

C100-31P-	<p>Newborn stars peek out from beneath their natal blanket of dust in this dynamic image of the Rho Ophiuchi dark cloud from NASA's Spitzer Space Telescope. Called "Rho Oph" by astronomers, it's one of the closest star-forming regions to our own solar system. Located near the constellations Scorpius and Ophiuchus, the nebula is about 407 light years away from Earth. Rho Oph is a complex made up of a large main cloud of molecular hydrogen, a key molecule allowing new stars to form from cold cosmic gas, with two long streamers trailing off in different directions. Recent studies using the latest X-ray and infrared observations reveal more than 300 young stellar objects within the large central cloud. Their median age is only 300,000 years, very young compared to some of the universe's oldest stars, which are more than 12 billion years old.</p>	NASA/JPL-Caltech/Harvard-Smithsonian CfA	NOS 8
C100-32P-	Boy With Eyes Closed Snuggling With Pillow	Sigrid Olsson/PhotoAlto/CORBIS	NOS 1€
C100-33P-	<p>A triple-beam balance as used in chemistry laboratories. As its name suggests, the balance uses three beams to provide both a wide working range and the required degree of accuracy. Each beam deals with different scales; the top beam with tens of grammes, the centre beam with hundreds of grammes and the bottom beam with tenths of a gramme. The measurement is read when the end of the balance arm is aligned with the zero mark at far right. The sample of orange potassium ferricyanide on the balance weighs 215g.</p>	MICHAEL DALTON/FUNDAMENTAL PHOTOS/SCIENCE PHOTO LIBRARY	NOS 1€
C100-35P-	<p>In this handout picture from the South Tyrol Museum of Archaeology released Monday, Sept. 25, 2000, a researcher takes samples of the 5,300-year-old body of a Bronze Age hunter known as "Oetzi" in Bolzano, Italy. DNA tests will feature large in the new round of research into the ancient man who has already provided a wealth of material.</p>	AP Images	NOS 2€

C100-60P-2 IN10	ancient snow shoes	Tony Linck//Time Life Pictures/Getty Images	NOS 12
C100-61P-2 IN10	MODERN SKI LIFT	Image Source/Getty Images	NOS 12
C100-62P-2 IN10	ZIPLINE	Robert Harding Picture Library / SuperStock	NOS 13
C100-63P-2 IN10	ZIPLINE RIDER	Vallarta Adventures	NOS 13
C100-64P-2 IN10	Low angle view of snow covered pine trees	Panoramic Images/Getty images	NOS 12
C300-23P-	Thermometer being used to take a temperature	The McGraw-Hill Companies	NOS 19
FM-09P-874183	Tools - Set -up - spiral bound notebook with lab notes and a pencil	Matt Meadows	NOS 18
FM-09P-874185	2 paperclips being measured by two different rulers	Matt Meadows	NOS 18
MSS12_BONE_ID_CHART-MSS12P	MSS12_BONE_ID_CHART	The Mcgraw-Hill Companies	NOS 30
MSS12_CONTAINER_SQUARE_1L-MSS12P	MSS12_CONTAINER_SQUARE_1L	The Mcgraw-Hill Companies	NOS 21
MSS12_DISSECTING_NEEDLE-MSS12P	MSS12_DISSECTING_NEEDLE	The Mcgraw-Hill Companies	NOS 21
MSS12_FORCEPS-	Photo of a pair of forceps	Hutchings Photography/Digital Light Source	NOS 21
MSS12_HAND_LENS-	A thumbnail photograph of a hand lens. The photo will be a close up and the background should be contrasting to show the hand lens.	Hutchings Photography/Digital Light Source	NOS 30
PM_OWLPELLET.PSD-XPML08	OwlPellet	Macmillan/McGraw-Hill	NOS 30
PM_STRAINER_RED_P1-XPML08	red strainer	Macmillan/The McGraw-Hill Companies	NOS 21
Image ID	Image Desc	Credit	Page
C321-01P-	Chapter Opener: Digital mosaic of small images comprising Statue of Liberty	Visions LLC/Photolibrary	00-01
C321-02P-	Salt shaker silo	CORBIS	
C321-03P-	Piles of salt harvested from the sea resemble snow drifts.	Bill Curtsinger/Getty Images	
C321-04P-	Two gold wedding bands, close-up (still life)	Jose Luis Pelaez/Getty Images	
C321-05P-	Stack of gold ingots	Sagel & Kranefeld/Corbis	

C321-06P-	2nd phase figure 5, combo C321-05A. Sugar pouring from café style jar into a beaker of water	Hutchings Photography/Digital Light Source	
C321-07P-	2nd phase figure 5 combo C321-05A. Salt being poured from salt mox into a beaker of water	Hutchings Photography/Digital Light Source	
C321-08P-	2nd phase figure 6. can of lemon lime soda and a bottle of water with a glass of lemon lime soda between them	Hutchings Photography/Digital Light Source	
C321-09P-	Trail mix, various nuts with raisins, in a glass bowl on a wooden table	imagebroker / Alamy	
C321-100P-	2nd phase, launch lab. Student holdng pencil andscience journal, looking at a paper plate with a couple of tablespoons of sugar on it	Hutchings Photography/Digital Light Source	
C321-101P-	2nd phase mini lab. Student using a hand lens to observe a mixture of sand and iron filings	Hutchings Photography/Digital Light Source	
C321-102P-	2nd phase launch lab. Student at a table working to make an object out of paper clips, toothpicks and string.	Hutchings Photography/Digital Light Source	
C321-103P-	2nd phase EOC lab. Balloon model of ethanol molecule.	Hutchings Photography/Digital Light Source	
C321-105P-	2nd phase EOC lab. Student using inflated water balloons to make a molecule model	Hutchings Photography/Digital Light Source	
C321-10P-	Granite, a coarse-grained intrusive igneous rock. Granites vary in composition, but always consist of the minerals feldspar and quartz, and usually mica and hornblende.	Mark Steinmetz	
C321-11P-	A grill in a garden.	Conny Fridh/Getty Images	
C321-12P-	2nd phase figure 8. salt from shaker and pepper from shaker both being poured into a single beaker of water	Hutchings Photography/Digital Light Source	
C321-13P-	Close-up view of a trumpet against a white background	C Squared Studios/Getty Images	
C321-14P-	Gas Burner	Steve Allen/Brand X Pictures/Alamy	
C321-15P-	2nd phase figure 9. clear spray bottle filled with clear ammonia cleane	The Mcgraw-Hill Companies	
C321-16P-	2nd phase figure 10. mixture of rocks, pebbles and soil from a jar being poured into a strainer	Hutchings Photography/Digital Light Source	
C321-17P-	2nd phase, figure 10. large jar or beakder with oil and vinegar in it. A ladle is scooping out some oil, leaving vinegar untouched	Hutchings Photography/Digital Light Source	

C321-18P-	Sugar crystals on string in glass of translucent sucrose solution, close-up	Andy Crawford and Tim Ridley/Getty Images	
C321-19P-	Lesson 2 Opener-Close up of Diamond setting ring	Bryan F. Peterson/CORBIS	
C321-20P-	A clementine on shadowless white background	Anna Yu/Getty Images	
C321-21P-	True-color image showing North and South America as they would appear from space 35,000 Km above the Earth	Stocktrek/age fotostock	
C321-22P-	Lesson 1 Opener-Workers pour molten bronze metal into the molds to cast actor statuettes, which will be awarded at the 12th Annual Screen Actors Guild (SAG) Awards, at the American Fine Arts Foundry on January 19, 2006 in Los Angeles, California. The solid bronze statuettes, weighing about 12 pounds and standing approximately 16 inches tall, are created using a two to three thousand year old lost wax process. Each statuette is engraved with an individual serial number, which originally began with the number one. About 401 have been awarded since the first award was presented in 1995. The 12th Annual SAGE Awards will be held on January 29 at the Los Angeles Shrine Exposition Center.	Getty Images	
C321-24P-	Anesthesia. Close-up of a woman inhaling anesthetic gas from a transparent gas-mask prior to surgery. Her eyes have closed, showing that the drug has taken effect. Anesthetic gases, such as nitrous oxide (laughing gas) and halothane, are used to induce or maintain unconsciousness during surgery. Other drugs are also given to abolish pain (e.g. morphine) or to relax muscles (e.g. pancuronium), which makes surgical manipulation easier. Because anesthesia can lead to vomiting, slowed breathing and irregular heartbeat, the anesthetist keeps a careful check on pulse and breathing throughout an operation.	Simon Fraser / Photo Researchers, Inc.	
C321-25P-	Hazy skies above a sprawling Shanghai due to pollution.	EIGHTFISH/Getty Images	

C321-26P-	When dissolved in little icy water, dinitrogen tetroxide reacts with it to form nitric acid but dinitrogen trioxide separates as a dark blue lower layer, which some of it combines with water to form paler blue unstable nitrous acid.	Philip Evans/Getty Images	
C321-51P-	Oil being poured into a petri dish□	sciencephotos / Alamy	
C321-53P-	Close-up view of sand	Charles Smith/Corbis	
MSS12_TAPE_TRANS PARENT-MSS12P	Transparent tape	Hutchings Photography/Digital Light Source	
PM_CARDS_INDEX_COLORS.PSD-XPML08	Cards Index Colors	Macmillan/McGraw-Hill	
PM_MARKER_WATERPROOF.PSD-XPML08	Marker Waterproof	Macmillan/McGraw-Hill	
C310-01P-	chap. opener Everett Boeing factory. Seattle. USA□	age fotostock / SuperStock	00-01
C310-02P-	Slovenia, Isonzo (Soca) river, rafting.	SIME s.a.s / eStock Photo	
C310-03P-	Table 1 combo C310-14A, 04P, 05P, 06P, 07P, 08P. 4-6 rocks in a jar	Hutchings Photography/Digital Light Source	
C310-04P-	Table 1 combo C310-14A, 03P, 05P, 06P, 07P, 08P. 4-6 rocks used in C310-03P, now on a table	Hutchings Photography/Digital Light Source	
C310-05P-	Table 1 combo C310-14A, 03P, 04P, 06P, 07P, 08P. beaker with a fixed amount (50mL) of colorful liquid. Should be easily readable that beaker has 50mL of liquid, markings should be visible	Hutchings Photography/Digital Light Source	
C310-06P-	Table 1 combo C310-14A, 03P, 04P, 05P, 07P, 08P. colorful liquid from C310-05P, now in a graduated cylinder. Should be obvious that liquid measure 50mL, markings should be visible	Hutchings Photography/Digital Light Source	
C310-07P-	Table 1 combo C310-14A, 03P, 04P, 05P, 06P, 08P. PROPERTIES OF GASES- NITROGEN DIOXIDE. □NO2 gas was generated by adding nitric acid to copper. Because a gas has no definite volume or shape it will fill whatever volume is available to it, in this case the flask.	Richard Megna, Fundamental Photographs, NYC	

C310-08P-	Table 1 Combo 310-14A, 03P, 04P, 05P, 06P, 07P. PROPERTIES OF GASES- NITROGEN DIOXIDE - Gas Has No Definite Form Or Volume. □When the stopper is removed, the gas seeks equilibrium by filling tne larger space now available.	Richard Megna, Fundamental Photographs, NYC	
C310-09P-	fig 1. Group of Men Whitewater Rafting□	David Madison/Corbis	
C310-100P-	lesson 1 mini lab. Student about to drop small piece of clay in the shape of a ball into a 50mL graduated cylinder with 25 mL of water.	Hutchings Photography/Digital Light Source	
C310-10P-	Fig 2 left combo C310-08A triple beam balance w/small rock of golden pyrite on the pan.if possible rock should look like it's about 17.5 g. rock must fit in a 100-mL graduated cylinder	Hutchings Photography/Digital Light Source	
C310-11P-	Fig 2 left blowout combo C310-08A close-up of sliding weights on triple beam balance, slides on balance should read 17.5 g	Hutchings Photography/Digital Light Source	
C310-12P-	Fig 2 middle combo C310-08A large colorful box w/3 metric rulers along its length, height & width. Ruler should all be the same & measurements s/b readable	Hutchings Photography/Digital Light Source	
C310-13P-	Fig 2 right combo C310-08A 100mL graduated cylinder w/a rock of pyrite beside it. Should be exactly 70mL water in cylinder. Pyrite should have volume that appears to be 3.5 cm ³	Hutchings Photography/Digital Light Source	
C310-14P-	Fig 2 far right comb C310-08A rock of pyrite in graduated cylinder with water. Water level with pyrite inside s/b 73.5 mL	Hutchings Photography/Digital Light Source	
C310-15P-	Fig 3 two small clear glasses w/spoon in each. 1st glass filled w/colored liquid to indicate a powered drink mix has been stirred in. liquid should be clear to show completely dissolved. 2nd glass	Hutchings Photography/Digital Light Source	
C310-17P-	fig 4. Magnet	Dorling Kindersley/Getty Images	
C310-18P-	fig 4. Baked Potato	John A. Rizzo / Getty Images	
C310-19P-	fig 4. Twisted wire against blueprint, close-up□	Nash Photos / Getty Images	
C310-21P-	Hindenburg □Lakehurst Naval Airstation □New Jersey□USA □May 6, 1937	Underwood Photo Archives / SuperStock	
C310-22P-	Rusting Old Car□	Galen Rowell/CORBIS	
C310-23P-	Table 2 row 1 spoon with about 14.5 g of table sale in it	Hutchings Photography/Digital Light Source	

C310-24P-	Table 2 row 2 spoon with about 11.5 g of granulate sugar in it	Hutchings Photography/Digital Light Source	
C310-25P-	Table 2 row 3 spoon with about 16.0 g of baking soda in it	Hutchings Photography/Digital Light Source	
C310-26P-	Table 2 row 4 spoon with about 16 g of table sale in it	Hutchings Photography/Digital Light Source	
C310-27P-	Fig 6 margin photo showing beads sorted by shape and color	Hutchings Photography/Digital Light Source	
C310-28P-	Fig. 7 Draining cooked spaghetti	Bayside-StockFood Munich/Stockfood	
C310-29P-	Fig 7 metal pot of water with salt water boiling viorously. Pot should be on a heat source box of salt visible in background	Hutchings Photography/Digital Light Source	
C310-30P-	Fig 7 same pot as C310-29P with no water nor on heat source. Bottom of pot should have residue of salt left behind after water has boiled away	Hutchings Photography/Digital Light Source	
C310-31P-	Fig 7 right magnet held above a pile of sand mixed with iron filings. Some iron filings should be attracted to the magnet student	Hutchings Photography/Digital Light Source	
C310-33P-	Boy walks across polluted stream which runs by weathered barn on hill.□	BRUCE DALE/National Geographic Image Collection□	
C310-34P-	Colorful Fall Trees	Brand X Pictures/PunchStock	
C310-35P-	Fig 9 top colorful ball of modeling clay on a digital balance. The mass of clay is clearly visible on the balance.	Hutchings Photography/Digital Light Source	
C310-36P-	Fig 9 bottom same clay & digital balance as C310-35P except the clay should be flattened into some shape. The mass of the clay is clearly visible	Hutchings Photography/Digital Light Source	
C310-37P-	Fig 10 combo C310-04A 3 ident. beakers or jars side by side, ea. w/water. L beaker sugar being poured from box & seen spreading through water. M beaker what happens after sugar begins to dissolve. R beaker what happens after sugar finishes dissolving student	Hutchings Photography/Digital Light Source	
C310-38P-	Fig 11 top conbo C310-11A beaker with ice cubes in it	Hutchings Photography/Digital Light Source	
C310-39P-	Fig 11 middle conbo C310-11A beaker with liquid water in it	Hutchings Photography/Digital Light Source	

C310-40P-	Fig 11 bottom combo C310-11A beaker with boiling water in it. Beaker should be sitting on a hot plate	Hutchings Photography/Digital Light Source	
C310-41P-	Forest fires destroy evergreen forest in Montana	Creatas / PunchStock	
C310-42P-	Forest fires surrounding Barcelona,Spain	Stockbyte/Getty Images	
C310-43P-	Alka-Seltzer is an effervescent medicine generally used to treat heartburn and indigestion. Effervescent tablets dissolve quickly in water and can in effect be absorbed by the body faster than medicine in pill form.	Charles D. Winters / Photo Researchers, Inc.	
C310-44P-	PRECIPITATION: LEAD IODIDE - Reaction of Potassium Iodide with Lead Nitrate. As the 0.1M clear solution of KI (potassium iodide) is poured into the 0.1M clear solution of Pb(NO ₃) ₂ , a yellow precipitate of PbI ₂ (lead iodide) is formed.	Richard Megna, Fundamental Photographs, NYC	
C310-45P-	Roasting Marshmallow Over Glowing Embers	Phil Degginger / Alamy	
C310-46P-	New York City skyline and fireworks.	Milton Heiberg / Photo Researchers, Inc.	
C310-47P-	Lizhen Liang, an employee with J&J Snack Foods, prepares low-carb pretzels for baking April 20, 2004, in Bellmawr, N.J.	AP Photo/Courier Post, Paris L. Gray	
C310-48P-	Low-Carb pretzels come out of an oven at the J&J Snack Foods April 20, 2004, in Bellmawr, N.J.	AP Photo/Courier Post, Paris L. Gray	
C310-49P-	Oak tree (Quercus sp.)	Getty Images	
C310-50P-	Wooden chair hard school	Hugh Threlfall / Alamy	
C310-51P-	Logs Burning in Fireplace	Bryan Mullennix / Getty Images	
C310-52P-	EOC student reading volume measurement on a graduated cylinder that has a piece of pyrite in it with wter level at 73.5mL	Hutchings Photography/Digital Light Source	
C310-59P-	Launch Lab Lesson 1. A student wearing goggles, apron, gloves, pouring 1 cup (using a measuring up) of water into a pie pan that has cornstarch in it.	Hutchings Photography/Digital Light Source	
C310-60P-	Launch Lab Lesson 2. A student wearing goggles, apron, gloves, holding eye dropper full of red HCl solucion over a red sponge	Hutchings Photography/Digital Light Source	
C310-62P-	Mini Lab Lesson 2. A student's hands in process breaking a glow stick	Hutchings Photography/Digital Light Source	

C310-63P-	Lesson 1 Skill: student measuring a metal block with a cm ruler. On table should be a triple beam balance and a 100mL graduated cylinder filled to approx. 30mL with water On location	Hutchings Photography/Digital Light Source	
MSS12_CUBE_METAL-MSS12P	Solid metal cube approximately 1cm-2cm (small enough to fit into a graduated cylinder). See lab photo C310-63P-MSS12	Hutchings Photography	
MSS12_GRADUATED_CYLINDER_100ML-MSS12P	A thumbnail photo of a 100mL graduated cylinder. Show the measurement in the front. Silo. Show only 1 glass graduated cylinder (instead of 3 as shown in the go-by)	Hutchings Photography	
MSS12_MINERALS-	minerals; quartz, gypsum, hornblade, magnetite, sphalerite, flourite included.	Hutchings Photography/Digital Light Source	
MSS12_RULER-	A thumbnail photograph of a plastic metric ruler. The photo will be a close up and the background should be contrasting to show the markings of the ruler. The markings do not have to be discernible. The ruler should have a groove down the center.	Hutchings Photography/Digital Light Source	
MSS12_SCALE_TRIPL E-	Triple beam scale	Richard Hutchings (see Digital Light Source)	
PM_NAILS_STEEL.PS D-XPML08	Nails Steel: use one nail	Macmillan/McGraw-Hill	
C330-01P-R-MSS12	Sable Island, Nova Scotia. A man carries a weather balloon.	Nick Caloyianis/National Geographic/Getty Images	00-01

C330-02P-	Periodic table. Computer artwork of a periodic table of the elements arranged around an spiral galaxy. Each circle contains an element's chemical symbol and atomic number (the number of protons in the nucleus). The element neutronium (n), which has the atomic number 0, is at the center of the galaxy. Elements with similar chemistry occur in the same spoke and some of the different groups are color coded. Different configurations of the traditionally rectangular periodic table are produced in the hope of arousing interest in chemistry in the general public.□	P.J. Stewart / Photo Researchers, Inc.	
C330-03P-	Fig. 1 top. junk drawer containing office supplies when the contents are jumbled, pens, pencils post its & rubberbands	Hutchings Photography/Digital Light Source	
C330-04P-	Fig. 1 bottom. same junk drawer as C330-03P but now contents are organized	Hutchings Photography/Digital Light Source	
C330-05P-	fig 3. Close-up of copper	DEA/A.RIZZI/De Agostini Picture Library/Getty Images	
C330-06P-	Silver (Ag), a native element and metal, Michigan, USA.□	Visuals Unlimited/Ken Lucas/Getty Images	
C330-07P-	Fig 3 Gold nugget against a white background	CORBIS	
C330-08P-	fig 3. Cadmium (atomic number: 48, symbol: cd) is a soft, malleable, ductile, bluish-white metal. It is highly toxic and is mainly produced as a by-product from mining, smelting, and refining sulfide ores of zinc, lead, and copper. Cadmium is used in batteries, pigments, coatings, plating, and as stabilizers for plastics. The United States produces about 1,100 tons of cadmium and consumes about 1,300 tons.□	Richard Treptow / Photo Researchers, Inc.	
C330-09P-	fig 3. Macro photograph of a gross specimen of zinc, a bluish-white metallic element.	Astrid & Hanns-Frieder Michler / Photo Researchers, Inc.□	
C330-10P-	fig 3. DROPLETS OF MERCURY□	ImageState / Alamy	
C330-11P-	magnesium shavings on a small dish□	David J. Green / Alamy	
C330-12P-	DEU, 2006: Silicon crystal, studio picture.	WILDLIFE / Peter Arnold Inc.□	
C330-13P-	fig 6. Sulfur (S), a native element used in chemicals and medicines.□	Mark Schneider/Visuals Unlimited/Getty Images	

C330-14P-	fig 7. American physicist Glenn T. Seaborg (1912-1999) with a Geiger-Muller radiation counter at Berkeley in 1956. He discovered the transuranic element plutonium in 1940, & shared the 1951 Nobel Prize for chemistry with Ed McMillan, discoverer of neptunium, for their work on transuranics. During World War II, he developed techniques for the isolation of plutonium for the Manhattan project, America's atom bomb program. His team at the University of California at Berkeley discovered the transuranics americium & curium in 1944, & berkelium & californium in 1949. He became chancellor of the university at Berkeley in 1958, chairman of the Atomic Energy Commission in 1961.□	LBNL / Photo Researchers, Inc.	
C330-15P-	fig 7. 1922: Niels Bohr (1885-1962), Danish physicist, Nobel prize of physics in 1922.	Boyer/Roger Violett/Getty Images	
C330-16P-	fig 7. Lise Meitner, 1927	ullstein bild/Peter Arnold, Inc.	
C330-17P-	Lightning striking Empire State Building, NYC, NY	Paul Katz/photolibrary.com	
C330-18P-	fig 8. Gold ingots, (Close-up)	Paul Katz/Getty Images	
C330-19P-	Fig.8 art/photo combo. C330-18P, C330-20P, C330-21P, C330-22P, C330-23P, C330-25A. a gold chain	Hutchings Photography/Digital Light Source	
C330-20P-	fig. 8 The funerary mask of Tutankhamun (c.1370-1352 BC) New Kingdom, c.1336-1327 BC (gold inlaid with semi-precious stones) (detail of 228800)	Egyptian National Museum, Cairo, Egypt, Photo © Boltin Picture Library / The Bridgeman Art Library International	
C330-21P-	fig 8. Japanese Aerospace Exploration Agency astronaut Soichi Noguchi waves at his space-walking crewmate, astronaut Stephen K. Robinson, during the August 1 extravehicular shared by the two mission specialists. Robinson can be seen in Noguchi's helmet visor using the new digital still camera outfitted for EVA exposure. Desertland on Earth and part of an horizon scene, approximately 225 statute miles below, can be seen in both Noguchi's visor and in the photo proper.	NASA	
C330-22P-	fig. 8 Printed circuit board with central processor and gold plated connections□	Charles Stirling / Alamy	

C330-24P-	fig 9 Potassium metal and water reacting in a petri dish	The McGraw-Hill Companies, Inc./Stephen Frisch, photographer	
C330-25P-	fig 9 sodium on water burning landscape	sciencephotos / Alamy	
C330-26P-	fig 9 lithium, soft metal, shiny when cut	Martyn Chillmaid/Oxford Scientific (OSF)/photolibrary.com	
C330-27P-	fig 10 Paintbrush and Yellow Paint	Royalty-Free/CORBIS	
C330-28P-	fig 10. Emerald in the rough crystal form	Dr. Parvinder Sethi	
C330-29P-	fig 10. Spessartine is magnesium manganese silicate and a member of the large garnet family. Spessartine, due to its manganese content, typically displays a strong orange or red-orange hue. The exact color varies greatly with locality, the most prominent of which are in Nigeria, Namibia, Brazil and California. A most unusual occurrence at Amelia, Virginia has produced extraordinary crystals, some as large as 3 inches across. Unlike most garnet crystals, the ones from Virginia are irregular and display prominent growth surfaces. Spessartine is now an important gem material.	Joel Arem / Photo Researchers, Inc.	
C330-30P-	fig 10. Close-up of blue glass bottle with a stopper against a white background	Ingram Publishing / SuperStock	
C330-31P-	The Flower. This is the "Mona Lisa" of Aerogel photographs.	E.O. Lawrence Berkely National Laboratory, University of California, U.S. Department of Energy	
C330-32P-	fig 13. Ball peen hammer shapes copper sheet into flower bowl	Ted Foxx / Alamy	
C330-33P-	fig 13. Sulfur (atomic number: 16, symbol: s) is yellow, odorless, brittle, solid and insoluble in water, but soluble in carbon disulfide. It can be found in meteorites, volcanoes, and hot springs and as galena, gypsum, epsom salts, and barite. Sulfur is used in black gunpowder, the vulcanization of natural rubber, making phosphatic fertilizers, fumigation, and to bleach dried fruits. The element is a good insulator and a minor constituent of fats, body fluids, and skeletal minerals.	Richard Treptow / Photo Researchers, Inc.	

C330-34P-	fig 14 Lump of Coal	Photodisc / Getty Images	
C330-36P-	fig 14 White phosphorus in a test tube and red phosphorus on a watch glass.□	Charles D. Winters / Photo Researchers, Inc.	
C330-37P-A-	fig 15 halogens in gas jars F I Cl Br I fluorine chlorine bromine iodine□ USE FLOURINE	sciencephotos / Alamy	
C330-37P-B-	halogens in gas jars F I Cl Br I fluorine chlorine bromine iodine□ USE CHLORINE	sciencephotos / Alamy	
C330-37P-C-	halogens in gas jars F I Cl Br I fluorine chlorine bromine iodine□ USE BROMINE	sciencephotos / Alamy	
C330-37P-D-	halogens in gas jars F I Cl Br I fluorine chlorine bromine iodine□ USE IODINE	sciencephotos / Alamy	
C330-37P-D-	L3 visual summary halogens in gas jars F I Cl Br I fluorine chlorine bromine iodine□ USE IODINE	sciencephotos / Alamy	
C330-41P-R-MSS12	fig. 17 fish bowl	The McGraw-Hill Companies, Inc./Jacques Cornell	
C330-42P-	fig 17 MP3 player with headphones, close-up□	Don Farrall/Getty Images	
C330-43P-	fig 17 Close-up of a sandcastle on the beach□	Ingemar Aourell/Getty Images	
C330-44P-	fig 17 Patient Breathing Through Tube□	Henrik Sorensen/Getty Images	
C330-45P-	fig 18 Computer Chips	PhotoLink/Getty Images	
C330-47P-	Lesson 3 Mini Lab. Student standing at a table with self sealing plastic bag about 1/4 filled with air and molded into a bowl shape with water in it. Student should be cupping the outside of bowl	Hutchings Photography/Digital Light Source	
C330-48P-	Skills Lab. Two students sitting at a table holding 5-6 cards. Between students there are 10-15 cards laying face up and organized by number or color.	Hutchings Photography/Digital Light Source	
C330-49P-	Lesson 1 Launch Lab. Two students at a table organizing building blocks with clear plastic bags of blocks containing 4 colors between them. In front of them should be 2 small piles.	Hutchings Photography/Digital Light Source	
C330-50P-	Lesson 2 Launch Lab. Student standing a table with variety of metal objects, a teaspoon, a piece of jewelry, a penny, aluminum foil, bolts, nail. Student should be holding oe in her hand and examining it	Hutchings Photography/Digital Light Source	

C330-51P-	Lesson 3 Launch. Student setting up a circuit test, with copper coin, aluminum foil, charcoal . Student should be attaching a wire to battery.	Hutchings Photography/Digital Light Source	
C330-52P-	Lesson 2 Mini Lab. Student removing rods made of different materials from a beaker of hot water. Rods should be metal, plastic, wooden, glas and flask tongs. On location	Hutchings Photography/Digital Light Source	
C330-53P-	EOC Lab. Two student working together to organize "Alien Insect" cards	Hutchings Photography/Digital Light Source	
C330-54P-	EOC Lab. Student (only show hands) drawing one of the "Alien Insect" cardsin a notebook	Hutchings Photography/Digital Light Source	
C330-55P-	Hubble space telescope photo of the Crab nebula	NASA-JPL	
C330-60P-	fig 8 Person with gold ring on washing hands to show gold in unreactive.	The McGraw-Hill Companies	
C330-61P-	Fireworks Reflecting in Lake□Fireworks in Night Sky reflecting in Lake. (Digital Composite)	Jeff Hunter/Getty Images	
MSS12_CARDS_ALIEN_INSECTS-MSS12P	Alien insect cards spread out	Richard Hutchings (see Digital Light Source)	
MSS12_CARDS_DECK S-MSS12P	Various card games	Richard Hutchings (see Digital Light Source)	
MSS12_FLASK_ERLENMEYER-MSS12P	Erlenmeyer Flask	Hutchings Photography/Digital Light Source	
C350-01P-	Traffic at sunset on Interstate 10 near Biloxi Mississippi	David R. Frazier Photolibrary, Inc. / Alamy	00-01
C350-01P--A	chapter review. Traffic at sunset on Interstate 10 near Biloxi Mississippi	David R. Frazier Photolibrary, Inc. / Alamy	
C350-02P-	Thermogram of a cat. The different colors represent different temperatures. The lightest colors are the hottest temperatures, while the darker colors represent cooler temperatures. Thermography uses special cameras that can detect light in the far-infrared range of the electromagnetic spectrum (900 14,000 nanometers or 0.9 14 μm) to create an image that represents an objects temperature.	Edward Kinsman / Photo Researchers, Inc.	

C350-03P-	Fireworks Over Portland Skyline	Thinkstock/Corbis	
C350-04P-	A beautiful daffodil reaching for the sun on a pretty spring day.□	Sharon Dominick/Getty Images	
C350-05P-	Hammer hitting nail on head	Dimitri Vervitsiotis/Getty Images	
C350-06P-	FIG 3 TOP LEFT. Associated with C350-02A, 07P, 08P, 09P. Middle school aged student about to pick up backpack containing textbooks from floor.	Hutchings Photography/Digital Light Source	
C350-07P-	FIG 3 TOP RIGHT. Associated with C350-02A, 06P, 08P, 09P. Middle school aged student holding backpack at chest level, just before putting on back	Hutchings Photography/Digital Light Source	
C350-07P--A	Lesson 1 Visual Summary. Middle school aged student holding backpack at chest level, just before putting on back	Hutchings Photography/Digital Light Source	
C350-08P-	Close-up view of two people's hands pulling and stretching a rubber band□	Image Source/Corbis	
C350-09P-	Marshmallows Roasting Over Open Flames□	Thinkstock/Corbis	
C350-100P-	Lesson 1 Launch. Student bent over reading thermometer in a cup 1/2 filled with sand. To illustrate how energy causes a change to occur	Hutchings Photography/Digital Light Source	
C350-101P-	Lesson 2 Mini Lab. Student wearing goggles holding marble above clay, getting ready to drop it. To illustrate how potential energy is converted into kinetic energy when an object falls	Hutchings Photography/Digital Light Source	
C350-102P-	Lesson 2 Launch. Students wearing goggles, sitting at a table with baggies and pennies. To illustrate how energy can be converted from one form to another, but is never created or destroyed	Hutchings Photography/Digital Light Source	
C350-103P-	Lesson 1 Mini lab. Student wearing goggles and holding a marble at the top of a ruler in the groove, as if about to release the marble to roll down the groove. To illustrate that an object with kinetic energy can do work	Hutchings Photography/Digital Light Source	

C350-104P-	Lesson 3 launch. 3 students wearing goggles, sitting at table with paper bag in middle of students. One student has pile of beans in front of them and another student is reaching into bag. To illustrate difference between renewable and nonrenewable energy	Hutchings Photography/Digital Light Source	
C350-105P-	Lesson 2 Skill. Student kneeling having pulled washers back so they are in front of meter stick. Student about to let washers go so they swing down & collide with box. To illustrate how gravitational potential energy depends on mass & height	Hutchings Photography/Digital Light Source	
C350-106P-	EOC. 3 students, 1 directing hair dryer on blades of windmill, another holding a stopwatch and third student getting ready to measure length of tread with metric ruler. To illustrate how wind energy can do work	Hutchings Photography/Digital Light Source	
C350-10P-	Basketball player shooting from free throw line, rear view	David Madison/Getty Images	
C350-11P-	Guitar string vibrating. When plucked, the string vibrates at a specific frequency, which determines the pitch of the note. The vertical lines on the fretboard (center right) of the guitar mark where fingers should be placed to shorten or lengthen the vibrating part of the string. Shortening the string produces a note with a higher pitch, lengthening it lowers the note. The vibration of the string itself does not create much sound, but the strings in turn cause the top plate of the guitar to vibrate, which is much louder. The hole at center left allows these amplified sound waves to escape.□	Andrew Lambert Photography / Photo Researchers, Inc.	
C350-12P-	Close-up of a burning campfire.	Design Pics / age fotostock	
C350-13P-	Electric fan	VStock / Alamy	
C350-14P-	Spotlights against blue sky□	Matthias Kulka/zefa/Corbis	
C350-15P-	A road stretches away from the camera in Death Valley, California, under a hot sun□	Goodshoot/PunchStock	
C350-16P-	Hubbard Glacier calving Disenchantment Bay SE AK summer scenic□	Alaska Stock LLC / Alamy	

C350-18P-	FIG 7. Art/photo combo C350-28P, 29P, 30P, 06A. Student coasting on bicycle, shot from side. Blur image a bit to give a sense of motion, bike & rider should be recognizable	Hutchings Photography/ Digital Light Source	
C350-19P-	Young woman using mobile phone, close-up □ London, England	Peter Cade/Getty Images	
C350-20P-	Cars in motion on highway, side view (blurred motion) □	Lorcan/Getty Images	
C350-21P-	19 Oct 2007, Sheffield, United Kingdom --- Steam rises from a power station behind the Royd Moor Wind Farm in Penistone near Sheffield, northern England.	Phil Noble/Reuters/Corbis	
C350-22P-	Teenage girl eating pita pocket	Jupiterimages	
C350-23P-	Putting Gas In A Car	BrandX/Jupiterimages	
C350-24P-	Irati Forest. Navarre. Spain	Pixtal/age fotostock	
C350-25P-	fig 15. Solar cells cover an area of fifty square feet on the south-facing back roof of a ecologically designed, low energy house. The panels feed a 5kW/24 V generator. □	Chinch Grynewicz; Ecoscene/CORBIS	
C350-26P-	New York State, Lewis County, Tug Hill, Wind turbine farm in countryside □	Frank Whitney/Getty Images	
C350-27P-	Svartsengi Geothermal Plant and Blue Lagoon in Iceland □	Arctic-Images/Corbis	
C350-28P-	FIG 7. Art/photo combo C350-18P, 29P, 30P, 06A. Closeup of front brake assembly on bike. Side view of wheel and brake	Hutchings Photography/ Digital Light Source	
C350-29P-	FIG 7. Art/photo combo C350-18P, 28P, 30P, 06A. Student applying brakes, similar to photo on left, shot from side. Blur image a bit to give a sense of motion, blurring less than C350-18P	Hutchings Photography/ Digital Light Source	
C350-30P-	FIG 7. Art/photo combo C350-18P, 28P, 29P, 06A. Bicycle stopped, student straddling bike with feet on ground, bicycle should be shot from the side	Hutchings Photography/ Digital Light Source	
C350-31P-	Silhouette of Oil Field at Sunset □	Bill Ross/CORBIS	
C350-34P-	tbl. 2 Hoover Dam, 2000	Courtesy USDA/NRCS, photo by Lynn Betts	
C350-36P-	tbl. 2 row 5. Wind turbines in highlands of Wales spin over farmland and sheep with mountains in the distance	Ingram Publishing / SuperStock	

C350-37P-	tbl. 2 row 2. San Onofre Nuclear Generating Station	Royalty-Free/CORBIS	
C350-38P-	tbl. 2 row 7. A cornfield at harvest time. □ Bennet, Nebraska.	Joel Sartore/National Geographic/Getty Images	
C350-40P-	Locomotive Rocket in 1829 combo C350-20A □	Ivy Close Images / Alamy	
C350-41P-	Early Light Bulb combo	Lawrence Manning/Corbis	
C350-43P-	Purple Smoke from Oil Refinery Smokestack background to AMNH	Royalty-Free/CORBIS	
C350-45P-	Desert Sun Mandara Lake replaces C350-15P	Frank Lukasseck/Getty Images	
MSS12_BOX_SMALL_LIGHT-MSS12P	inquiry skill practice. Small, light, box such as an empty, individual raisin box (no brand names)	Hutchings Photography/Digital Light Source	
MSS12_CONTAINER_CARDBOARD-MSS12P	inquiry lab. Cardboard container similar to cracker box or milk carton to be used as a support for a student construction?no brand names. See go-by	Hutchings Photography/Digital Light Source	
MSS12_HAIR_DRYER_3-SPEED-MSS12P	inquiry lab. A three speed hair dryer	Hutchings Photography/Digital Light Source	
MSS12_PENCIL_ROUND_ERASER-MSS12P	inquiry lab. round pencil with eraser (not traditional hexagonal pencil)	Hutchings Photography/Digital Light Source	
MSS12_RULER-	inquiry skill practice. A thumbnail photograph of a plastic metric ruler. The photo will be a close up and the background should be contrasting to show the markings of the ruler. The markings do not have to be discernible. The ruler should have a groove down the center.	Hutchings Photography/Digital Light Source	
MSS12_STOPWATCH-MSS12P	inquiry lab. Stopwatch	Richard Hutchings (see Digital Light Source)	
MSS12_STRING-MSS12P	inquiry skill practice. Ball of string	Richard Hutchings (see Digital Light Source)	
MSS12_TAPE_TRANSPARENT-MSS12P	inquiry skill practice. Transparent tape	Richard Hutchings (see Digital Light Source)	
MSS12_WASHER-MSS12P	inquiry skill practice. Washer	Richard Hutchings (see Digital Light Source)	
PM_PAPERCLIPS_JUMBO.PSD-XPML08	inquiry skill practice. PaperClips Jumbo	Macmillan/McGraw-Hill	

C02-30P-874185	2nd phase Figure 20 Crash testing (image 1 of 4). High-speed photograph of crash test dummies in a car hitting a wall at 56 kilometers per hour. For a sequence of this crash see images T615/186-189.	TRL Ltd./Photo Researchers	
C02-31P-874185	2nd phase Figure 20 Crash testing (image 2 of 4). High-speed photograph of crash test dummies in a car hitting a wall at 56 kilometers per hour.	TRL Ltd./Photo Researchers	
C360-01P-	Chapter Opener: BMX Bicyclist in Jump Sequence	Chris Milliman/Aurora Photos/Corbis	258-25
C360-02P-	An interior "aerial" view of the West End City Center shopping mall in Budapest.□	Paul Springett 09 / Alamy	
C360-04P-	Caption Story: Animal Navigation. Loggerhead Turtle with satellite transmitter heads out to sea, Virginia Beach, VA, USA□	James L. Amos / Peter Arnold Inc.	
C360-05P-	FOOT SMASHING THROUGH CONCRETE BLOCK AS MEN PRACTICE KARATE	Tim O'Sullivan / Imagestate	
C360-06P-	Blackbelt Breaking a Stack of Boards□	Hideki Yoshihara/age fotostock	
C360-07P-	Girl with hair sticking to balloons□	Image Source/Getty Images	
C360-08P-	Strong men are in the part of Carry and drag competition at 2006 TWI World's Strongest Man contest opened at Sanya beach on September 14, 2006 in Sanya, China. The 2006 MET-Rx World's Strongest Man contest will be in Sanya City, Hainan Province, China and the filming schedule calls for the qualification rounds to run September 14 - 17, with the top two competitors from each heat advancing to the finals, which are scheduled to run September 21 - 23. This year's events are going to include the Fingal Fingers, the Car Dead Lift, the Overhead lift with stones and not forgetting the infamous Atlas Stones. World's Strongest Man is the most important annual international event in strength athletics. Twenty five contestants take part across five heats; the top two in each go through to the final.	Zhang Jie/ChinaFotoPress/Getty Images	
C360-09P-	2nd phase Figure 17 combo C360-19A. Two student pulling desk away from wall	Hutchings Photography/Digital Light Source	

C360-100P-	2nd phase: lesson 1 launch. student sitting at a table with index card "in the school".	Hutchings Photography/Digital Light Source	
C360-101P-	2nd phase: lesson 1 mini lab. Basketball with masking tape marked every meter.	Hutchings Photography/Digital Light Source	
C360-102P-	2nd phase: lesson 1skill. Student next to a track made from paper towel rolls taped together with a tennis ball.	Hutchings Photography/Digital Light Source	
C360-104P-	2nd phase: lesson 3 launch. student holding a piece of notebook paper in one hand and a text book in the other.	Hutchings Photography/Digital Light Source	
C360-105P-	2nd phase: lesson 3 mini lab. Student holding a string with a mini skateboard on one end and a weight on the other partially drapped over the edge of a table.	Hutchings Photography/Digital Light Source	
C360-106P-	2nd phase: lesson EOC Inquiry. Student holding a skateboard with a modeling clay figure person sitting on the skateboard.	Hutchings Photography/Digital Light Source	
C360-107P-	2nd phase: lesson EOC. A close-up of a modeling clay figure person.	Hutchings Photography/Digital Light Source	
C360-108P-	2nd phase: modeling clay person figure sittin on the top of a toy truck. Student with stopwatch nearby.	Hutchings Photography/Digital Light Source	
C360-10P-	Misbehaving dog pulling his owner at dog show □ Teenage black girl being pulled by Goldendoodle dog on leash at dog show.	Yellow Dog Productions Inc./Getty Images	
C360-11P-	dogteam with musher, Lake Laberge, Yukon Territory, Canada	Stefan Wackerhagen/age fotostock	
C360-13P-	Teenage boy (15-17) throwing a bowling ball □	John Giustina/Getty Images	
C360-16P-	Swimmer on starting block □	Image Source/Getty Images	
C360-17P-	Researchers from the National Taiwan Ocean University (NTOU) attach a tracking device to a green turtle after nesting in Wanan Island, part of the Penghu archipelago off western Taiwan, 26 July 2007. Green turtles, listed as an endangered species here, come to several Taiwanese offshore islands during summer to nest and this year six turtles were sighted in Penghu by researchers from an NTOU green turtle conservation programme. AFP PHOTO/Sam YEH	SAM YEH/AFP/Getty Images	

C360-50P-	Elephant seal (<i>Mirounga angustirostris</i>) fitted with a satellite tracking device on its head . Photo taken at Ano Nuevo State Reserve located along the coast of central California .	D. R. Schrichte / SeaPics.com	
C360-51P-	Norway, Svalbard, Spitzbergen, bearded seal emerging from ice floe □ Apr 2000, <i>Erignathus barbatus</i> .	Doug Allan/Getty Images	
MSS12_BALLOONS-MSS12P	Balloons	Hutchings Photography/Digital Light Source	
MSS12_BOARD_50X15-MSS12P	Wooden board	Hutchings Photography/Digital Light Source	
MSS12_CLAY-MSS12P	clay	Hutchings Photography/Digital Light Source	
MSS12_PAPER_TOWEL_ROLL-	A thumbnail photo to show a paper towel roll. The roll should be standing on one end and should be plain white. Silo	Hutchings Photography/Digital Light Source	
MSS12_STOPWATCH-MSS12P	Stopwatch	Hutchings Photography/Digital Light Source	
MSS12_STRING-MSS12P	Ball of string	Hutchings Photography/Digital Light Source	
MSS12_TAPE_MASKING-MSS12P	Masking tape	Hutchings Photography/Digital Light Source	
PM_METERSTICK.PSD-XPML08	Meterstick	Macmillan/McGraw-Hill	
C364-01P-	excavator at outback gold mine, wa □	Neil Duncan/photolibrary.com	00-01
C364-01P--A	excavator at outback gold mine, wa □	Neil Duncan/photolibrary.com	
C364-02P-	Tug boat towing cargo ship, elevated view	Malcolm Fife/Getty Images	
C364-03P-	Young adult man lifting weights □	JUPITERIMAGES/ Brand X / Alamy	
C364-04P-	Young adult man lifting weights □	JUPITERIMAGES/ Brand X / Alamy	
C364-05P-	Fig.2 combo C364-06P, C364-02A. Student pushing a wheeled suitcase. To illustrate that work can be done by a force applied at an angle to an object's motion	Hutchings Photography/Digital Light Source	

C364-06P-	Fig. 2 combo C364-05P, C364-02A.. Student pulling a wheeled suitcase with handle at an angle. Suitcase is shown from the side. To illustrate force applied at an angle	Hutchings Photography/Digital Light Source	
C364-08P-	fig. 3 combo C364-03A. Middle school student lifting a backpack to about shoulder height, just before they would put backpack over shoulder. To illustrate work done in lifting an object.	Hutchings Photography/Digital Light Source	
C364-09P-	Mature man shoveling snow from frozen pond, elevated view□	Philip and Karen Smith/Getty Images	
C364-103P-	lesson 2 mini lab. Student pulling toy car mid way up a ramp using a spring scale. Second student watchin spring scale to record measurement. To illustrate lab procedure	Hutchings Photography/Digital Light Source	
C364-105P-	lesson 3 mini lab. 2 students holding broomsticks with rope around broomsticks. Third student pulls on taut rope as in pulley system. To illustrate lab procedure	Hutchings Photography/Digital Light Source	
C364-107P-	EOC inquiry. Student pulling spring scale, 10cm string & weight apparatus up ramp. 2nd student holding meterstick & looking at numbers on spring scale. To illustrate lab set up of ramp, books, 250g hooked wieght, 5N spring scale & meterstick	Hutchings Photography/Digital Light Source	
C364-109P-	Lesson 1 lab. 1 student pulling spring scale hooked to a string tied around book. Another student is reading scale	Hutchings Photography/Digital Light Source	
C364-110P-	lesson 2 student using can opener to open a metal can	Hutchings Photography/Digital Light Source	
C364-111P-	EOC inquiry. student pulling straight up on pulley, 2nd student holding meterstick & looking at numbers on spring scale. To illustrate lab set up of ring stand with pulley, string, weight and spring scale.	Hutchings Photography/Digital Light Source	
C364-12P-	Close up of scissors	Corbis	
C364-15P-	Person levering up floorboard using crowbar□	Steve Gorton/Dorling Kindersley/Getty Images	
C364-16P-	Father and Son Raking Leaves□	Sean Justice/Getty Images	
C364-17P-	A single pulley system pulling a 10 newton load.	Dorling Kindersley	
C364-18P-	Close-up of the hinge on a door□	Glowimages/Getty Images	

C364-20P-	Aluminum can	Jupiterimages	
C364-21P-	fig 9 Classic car interior, Cienfuegos, Cuba□	Rod McLean / Alamy	
C364-22P-	fig 9 Man loading boxes into truck	David Papazian Photography Inc./Jupiterimages	
C364-23P-	Door Stop to illustrate a wedge	The McGraw-Hill Companies	
C364-24P-	fig 9 Screws	F. Schussler/PhotoLink/Getty Images	
C364-25P-	Close up of a pulley used on a sailboat□	Susan E. Degginger / Alamy	
C364-27P-	Man pushing wheelbarrow on construction site, side view□	Digital Vision / Alamy	
C364-29P-	fig 12 Man in Studio posing□	Matt Carr/Getty Images	
C364-30P-	fig 12. Basketball - FIBA Women's World Championship - Australia vs. France□The feet of Australian player Jackson during the quarter finals match against France of the Women's Basketball World Cup 2006.	Maurilio Cheli/epa/Corbis	
C364-31P-	fig 12 Senior lifting weights□	liquidlibrary/PictureQuest	
C364-32P-	fig 13 □Screwdriver	JUPITERIMAGES/ Brand X / Alamy	
C364-36P-	fig 16. Turning a screw into wood with a screwdriver□	Reimar / Alamy	
C364-38P-	Mandarin in tin	imagebroker / Alamy	
C364-39P-	fig 19 close up detail machine gears□	Brand Z / Alamy	
C364-40P-	View of a person holding a hammer with the claw about to pull out a nail from a board. Only the arm holding the hammer is visible.	The McGraw-Hill Companies	
C364-41P-	Continuation of C364-40P. View of a hammer that has just pulled the nail from the board. The nail is still in the board but just about to come out. Only the arm holding the hammer is visible.	The McGraw-Hill Companies	
C364-42P-	Figure 5: Gold pocket watch, open, with exposed gears and mechanical workings	Clive Streeter/Getty Images	
C364-45P-	fig 9 Adult and young elephant playing on seesaw at beach	Bob Elsdale	
C364-46P-	a diamond dealer shows off the quality of one of his many diamonds at a Hatton garden workshop.	Andy Aitchison/Corbis	
C364-47P-	Lesson 3 Opener: Small wooden trebuchet at Castelnaud	SoloStock Travel/Alamy	
C364-48P-	fig 15 overlay C364-14A axe splitting wood	Mark Douet/Getty Images	

C364-49P-	The Clay Mill□Two men work on a horse-powered clay mill, 1888. United Kingdom.	P.H. Emerson/George Eastman House/Getty Images	
C364-50P-	Watt's Engine□circa 1935: Watt's cabinet steam engine.	Hulton Archive/Getty Images	
C364-51P-	Les Docks De Cardiff The Docks At Cardiff□S.D.1896□Walden, Lionel(1861-1933 American)□Oil On Canvas Musee d'Orsay, Paris, France	Bridgeman Art Library / SuperStock	
C364-52P-	Old Patagonian Express "Trochita"	Eduardo M. Rivero/age fotostock	
M639_18P_MSS02-861704	Student using a ruler as a lever with an eraser to lift up a book	McGraw-Hill	
MSS12_HOOKED_WEIGHTS-MSS12P	Hooked weight set	Richard Hutchings (see Digital Light Source)	
MSS12_METER_STICK-K-	A thumbnail photograph of a meterstick. The photo will be a close up and the focus should be close enough to show markings on the face, but not such that the numbers are discernible. The meterstick could be wood or plastic, but should be one full meter in length. One of each material in a side by side is a potential alternative.	Hutchings Photography/Digital Light Source	
MSS12_RING_STAND-MSS12P	Ring stand assembly. Please assemble the ring stand to look like it is ready to use. Shoot from the front/top so the ring, as a circle, is visible. See goby.	The McGraw-Hill Companies	
MSS12_SPRING_SCALE_5N-MSS12P	Spring scale, 5N size. See go-by	The McGraw-Hill Companies	
PM_PULLEY_SINGLESHEAVE.PSD-XPML08	Pulley SingleSheave	Macmillan/McGraw-Hill	
C352-01P-	Chapter Opener: Power plant at night, Voerde, Germany (Rhine River basin)	Frank Lukasseck/Corbis	00-01
C352-01P--A	Chapter review big idea: Power plant at night, Voerde, Germany (Rhine River basin)	Frank Lukasseck/Corbis	
C352-02P-	equitation : horse with rider - jumping	Juniors Bildarchiv/photolibrary.com	

C352-02P--A	Study guide. equitation : horse with rider - jumping	Juniors Bildarchiv/photolibrary.com	
C352-03P-	egg on the edge of a table□	Dimitri Vervitsiotis/Getty Images	
C352-04P-	Teenage girl (13-15) sitting on swing, eating apple, portrait□	David Young-Wolff/Getty Images	
C352-05P-	Herd of African Elephants (Loxodonta africana) moving at sunset, silhouetted with trees	Digital Vision/PunchStock	
C352-07P-	Hockey Player Shooting Puck□	David Stoecklein/CORBIS	
C352-08P-	Drop Falling into Water	Royalty-Free/CORBIS	
C352-09P-	Roller coaster	Tommaso di Girolamo/age fotostock	
C352-100P-	2nd phase. Lesson 1 launch. Student holding the handle of a tuning fork and tapping one of the arms near the tip with a mallet. 250 mL beaker 3/4 full of water next to student	Hutchings Photography/Digital Light Source	
C352-101P-	2nd phase. Lesson 1 minilab. Student standing up dominoes against a ruler so that he facing sides are 1cm apart. Second student is holding stopwatch	Hutchings Photography/Digital Light Source	
C352-102P-	2nd phase. Skill. Electronic parts of a musical greeting card	Hutchings Photography/Digital Light Source	
C352-103P-	2nd phase. Lesson 2 launch. Student examining the different parts of a flashlight lying on table. Student should be holding one part of the flashlight and examining it	Hutchings Photography/Digital Light Source	
C352-104P-	2nd phase. Lesson 2 minilab. Student pointing to cork flating at one end of rectangular pan half filled with water. Another student is holding spoon in one hand and drinking straw in other	Hutchings Photography/Digital Light Source	
C352-105P-	2nd phase. Lesson 3 minilab. 3 100mL beakers in a row, each contains 75mL of water. First beaker has aluminum foil on top, 2nd beaker has square of cotton batting on top and 3rd beaker has an open top	Hutchings Photography/Digital Light Source	
C352-106P-	2nd phase. EOC Inquiry. Combo C352-101A. Potato battery circuit	Hutchings Photography/Digital Light Source	
C352-107P-	2nd phase. EOC Inquiry. Student attaching one end of potato battery circuit to one wire on a circuit as 106P. Replace meter with the LED light in the circuit	Hutchings Photography/Digital Light Source	

C352-10P-	LO: 2 Emperor Penguin (<i>Aptenodytes forsteri</i>) parent with chick at feet huddling for warmth, Weddell Sea, Antarctica□	David Tipling/Minden Pictures	
C352-11P-	Tennis Player Reaching to hit tennis ball on tennis court□	MOODBOARD/age fotostock	
C352-12P-	2005 Ford Mustang GT Convertible in motion□	Transtock	
C352-13P-	Workers set up solar panels at a power plant in Amareleja, southern Portugal, April 24, 2008. The Amareleja village town hall, along with private investors, are building a solar power plant in southern Portugal which officials claim will be the world's largest and most powerful.	JOSE MANUEL RIBEIRO/Reuters /Landov	
C352-14P-	High angle view of a wind farm, California, USA	Thinkstock/Masterfile	
C352-15P-	Aerial view of Shasta Dam, Shasta Lake and Mt. Shasta in the distance.	Harald Sund/Getty Images	
C352-16P-	Pacific Gas & Electric's 18-plant, 1400-megawatt geothermal facility near Geyserville, California, uses steam from underground for power. December 12, 1990□	Roger Ressmeyer/CORBIS	
C352-17P-	Wood shreds are loaded in front of the biomass thermal power station near Brunsbuettel, northern Germany, on Wednesday, Feb. 11, 2009.	AP Photo/Heribert Proepper	
C352-20P-	A toaster oven	The McGraw-Hill Companies	
C352-21P-	LO: 3 Agama lizard, <i>Agama agama</i> , Masai Mara Game Reserve, Kenya□	Adam Jones/Visuals Unlimited, Inc.	
C352-21P--A	Lesson 3 visual summary. <i>Agama agama</i> , Masai Mara Game Reserve, Kenya□	Adam Jones/Visuals Unlimited, Inc.	
C352-22P-	Glass Of Ginger Ale	Foodfolio/age fotostock	

C352-23P-	Balloon expanding as it warms. The balloon on the left has been cooled to -198 degrees Celsius using liquid nitrogen. The molecules of air in this balloon have less energy when cooled and move slower, producing less pressure on the inside of the balloon, so it has collapsed to a smaller size. The balloon on the right has been allowed to warm up to room temperature and has regained its normal air volume. In this case the air molecules have more energy and move faster, therefore exerting more pressure on the inside of the balloon, making it expand to a larger size.□	David Taylor / Photo Researchers, Inc.	
C352-24P-	combo C352-22A. Antarctica, iceberg in ocean□	Sue Flood/Getty Images	
C352-25P-	MAN TAKING BOTTLE OF MINERAL WATER FROM REFRIGERATOR□	foodfolio / Alamy	
C352-27P-	ice in beaker with thermometer	The McGraw-Hill Companies.	
C352-27P--A	closeup of thermometer at 0 degrees C	The McGraw-Hill Companies.	
C352-28P-	water in beaker with thermometer	The McGraw-Hill Companies.	
C352-28P--A	closeup of thermometer at 50 degrees C	The McGraw-Hill Companies.	
C352-29P-	boiling water in beaker with thermometer	The McGraw-Hill Companies.	
C352-29P--A	closeup of thermometer at 100 degrees C	The McGraw-Hill Companies.	
C352-34P-	freezing rain on leaves	Thomas Sbampato/Alaskastock/photolibrary.com	
C352-35P-	Thermogram of a pot of water on a stove. The colors show temperature variation with the temperature scale running from white (warmest) through red, yellow, green and cyan, blue and black (coldest).□	Scientifica/Visuals Unlimited, Inc.	
C352-36P-	Polar bear (Ursus maritimus), Hudson Bay, Canada, North America□	Thomas Sbampato/photolibrary.com	
C352-37P-	Kung Fu film star Bruce Lee statue, The Avenue of Stars, Tsim Sha Tsui, Kowloon, Hong Kong, China, Asia	Gavin Hellier/Getty Images	
C352-38P-	Dog lying in snow	Jupiterimages/Getty Images	
C352-39P-	Golfer chipping ball out of bunker creating sand spray, flag in fore□	David Madison/Getty Images	
C352-40P-	Father and daughter in a bowling alley, about to roll the ball□	i love images / Alamy	

C352-41P-	Girl in a bowling alley rolling a blue bowling ball□	i love images / Alamy	
C352-42P-	Man bowling in bowling alley□	Asia Images Group Pte Ltd / Alamy	
C352-43P-	Woman pumping gas into her car□	Frederic Charpentier / Alamy	
C352-50P-	Grass cuttings in wheelbarrow	Richard Clark/photolibrary.com	
C352-51P-	English springer spaniel catching a frisbee	Adrian Sherratt / Alamy	
C352-52P-	French fries	MIXA / Alamy	
C352-54P-	Erlenmeyer flask against a white background	Brand X Pictures/PunchStock	
MSS12_GREETING_CARD_MUSICAL-MSS12P	MSS12_GREETING_CARD_MUSICAL	The Mcgraw-Hill Companies	
MSS12_HAND_LENS-	A thumbnail photograph of a hand lens. The photo will be a close up and the background should be contrasting to show the hand lens.	Hutchings Photography/Digital Light Source	
MSS12_NAILS_IRON-MSS12P	Iron nails	Hutchings Photography/Digital Light Source	
C03-01P-874183	lesson 2 review. Art and Photo combo. Photo of beaker of water being heated from below. Water should not be boiling. Art of superimposed convection current arrows and talking boxes will be added.	Matt Meadows	
C03-23P-874183	Set-up - Fig. 8 - setup photo of a partially deflated mylar balloon. Goes with C03-05P	Matt Meadows	
C03-44P-874183	Hot Air Balloons Glowing at Night	Corbis (Royalty-Free)	
C354-01P-	Chapter Opener: Thermographic image of a highway - from NGS mag March 09	Tyrone Turner/National Geographic Stock	00-01
C354-02P-	Traditional making of maple syrup by boiling down sap in an evaporator Ephrata New York Adirondacks□	Philip Scalia / Alamy	
C354-03P-	COLUMBUS, OH - JULY 07: Marvin Gonzalez #3 of El Salvador kicks the ball against Canada during a CONCACAF Gold Cup match at Crew Stadium on July 7, 2009 in Columbus, Ohio.	Jamie Sabau/Getty Images	
C354-06P-	House in Winter	Johner/Getty Images	

C354-07P-	Man by Campfire & Tent Winter Chugach SP SC AK	Alaska Stock LLC / Alamy	
C354-08P-	Car with a sunshield in the windshield	The McGraw-Hill Companies	
C354-09P-	Glass of ice tea by poolside□	Anthony-Masterson/Getty Images	
C354-100P-	2nd phase Lesson 1 launch. Student sitting at a table using a ruler and permanent marker to mark lines on a clear plastic straw	Hutchings Photography/Digital Light Source	
C354-101P-	2nd phase Lesson 1 skill. Foam cup inside a 1 L plastic container and secured with a rubber band next to a cylinder and two thermometers	Hutchings Photography/Digital Light Source	
C354-102P-	2nd phase Lesson 2 launch. Student with one palm on a sheet of metal, one on a piece of wood or foam and a third material with a liquid crystal thermometer on it	Hutchings Photography/Digital Light Source	
C354-103P-	2nd phase Lesson 2 mini lab. Meter long copper wire with ends tied to rings of two ring stands. thread with 5 washers is hanging from middle of the wire. A student is using ruler to measure the distance from the bottom of the washers to the table.	Hutchings Photography/Digital Light Source	
C354-104P-	2nd phase Lesson 3 mini lab. 100mL beaker with 10mL of water in it on a hot plate. Small square of aluminum foil should be on top of beaker	Hutchings Photography/Digital Light Source	
C354-105P-	2nd phase EOC. Student using a triple beam balance to find the mass of a frozen juice popsicle inside a resealable plastic bag with a drawn logo sticker on it	Hutchings Photography/Digital Light Source	
C354-106P-	2nd phase EOC. Student placing the baggie with a frozen fruit popsicle inside a shoebox. Shoebox is covered with aluminum foil and the inside of box contains an insulator	Hutchings Photography/Digital Light Source	
C354-10P-	Woman with cup of hot chocolate□	Summer Jones / Alamy	
C354-14P-	Closeup of expansion joint on a sidewalk	The McGraw-Hill Companies	
C354-16P-	The PS10 solar tower power plant produces clean thermoelectric power from the sun - Abengoa Solúcar platform in Andalusia Spain□	Kevin Foy / Alamy	
C354-17P-	Close up of thermostat showing bimetallic strip□	steven langerman / Alamy	
C354-17P--A	L3 review Q7 Close up of thermostat showing bimetallic strip□	steven langerman / Alamy	

C354-18P-	expansion joint bridge□	Tom Uhlman / Alamy	
C354-20P-	Thermostat	Thomas Northcut/Getty Images	
C354-50P-	Small wooden hut surrounded by rice fields in the small village of Mai Chau in Northern Vietnam□	Rachael Bowes / Alamy	
C354-51P-	Installing cavity wall insulation in modern house in Devon England□	Paul Glendell / Alamy	
C354-53P-	Doc Pilkinton, of Momper Insulation, installs fiberglass insulation to the attic of Mark and Danielle Yablonsky's home on in Fort Wayne, IN, February 3, 2006. The Yablonsky's home was part of a demonstration on weatherizing a house in order to make it more energy efficient. The Alliance to Save Energy. Indiana regulators, and the state's utility consumer advocate joined together to bring home the message that weatherization and energy efficiency can help customers lower their heating and other home energy bills.	CHRISTOPHER WEDDLE/UPI /Landov	
C354-54P-	Pink wall Insulation	David Papazian/Beateworks/Corbis	
MSS12_CARDBOARD-MSS12P	Sheets of cardboard	Hutchings Photography/Digital Light Source	
MSS12_CREATIVE_BUILDING_MATERIALS-MSS12P	Shot of newspaper, bubble wrap, aluminum foil, plastic wrap, construction paper, cardboard, and a spool of wire.	The Mcgraw-Hill Companies	
MSS12_CUP_STYRENE-MSS12P	Styrene cup	Hutchings Photography/Digital Light Source	
MSS12_OFFICE_SUPPLIES-MSS12P	Shot of transparent tape, stapler, scissors, ruler, paper clips, push pins, rubber bands, and 1 hole punch.	The Mcgraw-Hill Companies	
MSS12_RUBBER_BANDS-MSS12P	Pile pf 20+ rubber bands varying in sizes and thickness	The Mcgraw-Hill Companies	
MSS12_SCALE_TRIPLE-	Triple beam scale	Hutchings Photography/Digital Light Source	
PM_BAG_PLASTIC_SANDWICH.PSD-XPML08	Bag Plastic Sandwich	Macmillan/McGraw-Hill	
PM_FOIL_ALUMINUM.PSD-XPML08	Foil Aluminum	Macmillan/McGraw-Hill	

PM_Peanuts_FOAMP KING.PSD-XPML08	Peanuts FoamPking	Macmillan/McGraw-Hill	
C122-02P-	(DAL) Open Sky with Scattered Clouds	Brand X Pictures/PunchStock	
C122-03P-	Waves crashing against rocky coast	Gary Vestal/Getty Images	
C122-04P-	(RF) Tower of Babel at Arches National Park	Corbis/SuperStock	
C122-05P-	Wolves, (Canis lupus). National Park Bavarian forest, Germany	age fotostock/SuperStock	
C122-06P-	The underlying image of the full disk of Earth and its clouds was taken on September 9, 1997, by a Geostationary Operational Environmental Satellite (GOES) operated by the U.S. National Oceanic and Atmospheric Administration (NOAA), and built by NASA. The ocean color data was collected in late September and early October 1997 by NASA's Sea-viewing Wide Field-of-view Sensor (SeaWiFS) satellite. The land color is portrayed by a vegetation index calculated using data collected from September 9-19, 1997, by Advanced Very High Resolution Radiometer (AVHRR) instruments carried aboard NOAA's Polar Orbiting Environmental Satellites (POES). Credit: NASA	NASA	

C122-06P--A	The underlying image of the full disk of Earth and its clouds was taken on September 9, 1997, by a Geostationary Operational Environmental Satellite (GOES) operated by the U.S. National Oceanic and Atmospheric Administration (NOAA), and built by NASA. The ocean color data was collected in late September and early October 1997 by NASA's Sea-viewing Wide Field-of-view Sensor (SeaWiFS) satellite. The land color is portrayed by a vegetation index calculated using data collected from September 9-19, 1997, by Advanced Very High Resolution Radiometer (AVHRR) instruments carried aboard NOAA's Polar Orbiting Environmental Satellites (POES). Credit: NASA	NASA	14-15
C122-08P-	Night Sky 34196	StockTrek/Getty Images	14-15
C122-09P-	Lesson 3 Opener: Sunset glow on La Sal Mountains with winter snow viewed from Turret Windows Section of Arches National Park	David Gralian/Alamy	
C122-10P-	Buffalos in Theodore Roosevelt National Park in North Dakota, USA	Medioimages/Photodisc/Getty Images	
C122-11P-	Yaks near Nyalam, Tibet, China, Asia	Jane Sweeney/Getty Images	
C122-12P-	Machhapuchhare	CORBIS	
C122-13P-	Llama on the Plains, Parque Nacional Volcan Isluga, Chile	Jonathan Andrew/CORBIS	
C122-14P-	Aerial View of Flooded Fields	Yann Arthus-Bertrand/CORBIS	

C122-20P-	NASA's Marshall Space Flight Center (MSFC) and university scientists from the National Space Science and Technology Center (NSSTC) in Huntsville, Alabama, are watching the Sun in an effort to better predict space weather - blasts of particles and magnetic fields from the Sun that impact the magnetosphere, the magnetic bubble around the Earth. Filled by charged particles trapped in the Earth's magnetic field, the spherical comet-shaped magnetosphere extends out 40,000 miles from Earth's surface in the sunward direction and more in other directions. This image illustrates the Sun-Earth connection. When massive solar explosions, known as coronal mass ejections, blast through the Sun's outer atmosphere and plow toward Earth at speeds of thousands of miles per second, the resulting effects can be harmful to communication satellites and astronauts outside the Earth's magnetosphere. Like severe weather on Earth, severe space weather can be costly. On the ground, magnetic storms wrought by these solar particles can knock out electric power. By using the Solar Vector Magnetograph, a solar observation	NASA Marshall Space Flight Center (NASA-MSFC)	
C122-21P-	Chapter Opener: Multi coloured Aurora, Eagle Plains, Yukon	Robert Postma/age fotostock	00-01
C122-22P-	Lesson 1 Opener: (RF) Earth Rising Over Moon Surface	Bloomimage/CORBIS	
C122-23P-	Lesson 2 Opener: Mystery Falls, Tennessee. A caver descends a rope. At 281 feet, Mystery Falls is the deepest pit in Tennessee.	Stephen Alvarez/Getty Images	
C122-24P-	Jar with gravel, syrup and green water	Hutchings Photography/Digital Light Source	
C122-25P-	Bowl and wood/rock samples	Hutchings Photography/Digital Light Source	
C122-26P-	Student hands cutting hard-boiled egg	Hutchings Photography/Digital Light Source	
C122-27P-	5 beakers with various liquids	Hutchings Photography/Digital Light Source	
C122-28P-	Student hands slicing clay patty with handprint	Hutchings Photography/Digital Light Source	

C122-29P-	Clay cove and student	Hutchings Photography/Digital Light Source	
C122-31P-	cutting salt dough	Hutchings Photography/Digital Light Source	
C122-33P-	4 colored dough spheres	Hutchings Photography/Digital Light Source	
C122-39P-	AMNH Feature: Photo of Dr. Harlow	AMNH	
C122-40P-	feature: A two carat rectangular step cut diamond with a large violet red garnet inclusion visible in the table facet	The Natural History Museum/Alamy	
C122-41P-	Student pouring liquid into a graduated cylinder	Hutchings Photography/Digital Light Source	
MSS12_BEAKER_100 ML-MSS12P	100ml Beaker	Hutchings Photography/Digital Light Source	
MSS12_DOUGH_BAG-MSS12P	Bag of dough balls	Hutchings Photography/Digital Light Source	
MSS12_FOOD_COLORING-	vegetable dye	Hutchings Photography/Digital Light Source	
MSS12_GLUCOSE_SYRUP-MSS12P	corn syrup	Hutchings Photography/Digital Light Source	
MSS12_ROLLING_PIN-MSS12P	rolling pin	Hutchings Photography/Digital Light Source	
MSS12_RUBBING_ALCOHOL-	rubbing alcohol	Hutchings Photography/Digital Light Source	
MSS12_SCALE_TRIPLE-	Triple beam scale	Hutchings Photography/Digital Light Source	
PM_FOOD_VEGOIL.PSD-XPML08	Food VegOil	Macmillan/McGraw-Hill	
PM_KNIVES_PLASTIC.PSD-XPML08	Knives Plastic	vMacmillan/McGraw-Hill	
PM_PAPER_WAX.PSD-XPML08	Paper Wax	Macmillan/McGraw-Hill	
PM_RULER_PLASTIC_BLUE.PSD-XPML08	Ruler Plastic Blue	Macmillan/McGraw-Hill	
C02-48P-874183	Thumbnail of a igneous rock	George Bernard/Photo Researchers	
C126-01P-	Chapter Opener: Tibet, sand dunes near Samye Monastery	Steve Allen/Getty Images	00-01

C126-02P-	Lesson 1 Opener: Ignimbrite exposed in river canyons cut since 1912 eruption in the Valley of Ten Thousand Smokes in Katmai Volcano National Park in Alaska USA A C Waltham	Robert Harding Picture Library Ltd/Alamy	
C126-08P-	Lesson 2 Opener: 2008:01:28. The Kilauea Volcano has been active for over 40 years. The Lava flow can reach as far as the sea	Philippe Bourseiller/Getty Images	
C126-09P-	Volcanic Pumice Stone Rock from the volcano on the Greek island of Nysiros in the Aegean sea	Tony Lilley/Alamy	
C126-100P-	Student examining rocks	Hutchings Photography/Digital Light Source	
C126-101P-	Teacher performing experiment	Hutchings Photography/Digital Light Source	
C126-103P-	Student using rolling pin	Hutchings Photography/Digital Light Source	
C126-104P-	Cups and epsom salt	Hutchings Photography/Digital Light Source	
C126-105P-	Student bread lab	Hutchings Photography/Digital Light Source	
C126-110P-	Granite	The McGraw-Hill Companies Inc./Ken Cavanagh Photographer	
C126-113P-	Crayon lab	Hutchings Photography/Digital Light Source	
C126-11P-	Lump of black obsidian, close up	Harry Taylor/Getty Images	
C126-14P-	Basalt is an extrusive (volcanic) igneous rock composed of calcic plagioclase and pyroxene and occasionally olivine. Accessory minerals are occasionally visible.	Mark Schneider/Getty Images	
C126-15P-	Granite containing Quartz, Mica and Feldspar	Colin Keates/Getty Images	
C126-16P-	Diorite Porphyry rock specimen	Albert Copley/Visuals Unlimited/Alamy	
C126-17P-	Grey Gabbro	Mike Dunning/Dorling Kindersley	
C126-19P-	Igneous rock : Rhyolite	RF Company/Alamy	
C126-20P-	Andesite, an igneous rock, from Port Macquarie, New South Wales, Australia.	Joyce Photographics/Photo Researchers, Inc.	
C126-22P-	Lesson 3 Opener: Virgin River	Panoramic Images/Getty Images	
C126-26P-	Conglomerate Rock	Andreas Einsiedel/Dorling Kindersley	
C126-27P-	Breccia Sample	Visuals Unlimited/CORBIS	

C126-31P-	Salar de Atacama, near the town of San Pedro de Atacama, is home to some of the world's richest deposits of lithium. However, reaching it requires great destruction.	National Geographic/Getty Images	
C126-32P-	Water dripping from a hallow stalactite Stalactite Cave Nature Reserve at Soreq Israel	PhotoStock-Israel/Alamy	
C126-33P-	Rock mineral Satin Spar Fibrous gypsum Worbarrow Bay Dorset	Frank Blackburn/Alamy	
C126-34P-	Close-up of rock salt	DEA/C.BEVILACQUA/Getty Images	
C126-35P-	200-million-year-old Limestone packed with Ammonite Fossils	Andreas Einsiedel/Dorling Kindersley	
C126-36P-	Chert scraper, Cyprus	Nearby/Alamy	
C126-37P-	Bituminous coal is a fossil fuel that is the most common type of coal. It is widely used by industry.	Mark Schneider/Getty Images	
C126-38P-	Lesson 4 Opener: Folded gneiss formation in Death Valley in Southeastern California, USA. These folds are called recumbent because their axial surfaces are nearly horizontal.	Visuals Unlimited/CORBIS	
C126-42P-	Aerial view of Stone Mountain, the largest granite outcropping in the world.	Kevin Fleming/CORBIS	
C126-43P-	Boulders and rocks frame a stream running into the Bay of Fundy from Baxter Beach	Momatiuk - Eastcott/CORBIS	
C126-45P-	Eroded sandstone formations, buttes and sand pans, fall afternoon, Escalante Grand Staircase National Monument, Utah	Momatiuk - Eastcott/CORBIS	
C126-51P-	Two geologists on Barkley Ridge in the Chugach Mountains, Alaska	Nancy Simmerman/Getty Images	
C126-52P-	Mica schist specimen from Massachusetts, USA.	Visuals Unlimited/CORBIS	
C126-56P-	Colorful badlands in the hottest, driest and lowest desert of streaming sand dunes, multicolored layers of sedimentary rocks, water eroded canyons and mountains which encompasses 3.4 million acres of famous wilderness, near Golden Canyon, Death Valley National Park, Mojave Desert, California	Eastcott/CORBIS	
C126-57P-	A piece of natural slate.	Steve Gorton/Getty Images	
C126-58P-	Metamorphic rock : Phyllite	RF Company/Alamy	

C126-59P-	Schist is a metamorphic rock - rocks that have developed into new rocks due to changes in condition in the earth's crust. Garnet is a mineral.	Mark A. Schneider/Photo Researchers, Inc.	
C126-60P-	Banded gneiss	Dr. Parvinder Sethi/The McGraw-Hill Companies	
C126-61P-	Quartzite, a metamorphic rock. It is formed when liquid quartz has filled in pores of sandstone during metamorphism while deep underground.	Andrew J. Martinez/Photo Researchers, Inc.	
C126-62P-	White Marble	The McGraw-Hill Companies Inc./Ken Cavanagh Photographer	
C126-63P-	Pumice	The McGraw-Hill Companies Inc./Ken Cavanagh Photographer	
C126-64P-	Sarah Fowler, a geologist with the American Museum of Natural History	Sarah Fowler	
C126-65P-	Grand Prismatic Spring	Jeff Vanuga/CORBIS	
C126-66P-	Tuff specimen.	Scientifica/Getty Images	
C126-67P-	Granite	Colin Keates/Dorling Kindersley, Courtesy of the Natural History Museum, London	
M527-47P-MSS02	1 of 6: Granite	Brent Turner/BLT Productions	
MSS12_HAND_LENS-	A thumbnail photograph of a hand lens. The photo will be a close up and the background should be contrasting to show the hand lens.	Hutchings Photography/Digital Light Source	
PM_FOOD_VINEGAR.PSD-XPML08	Food Vinegar	Macmillan/McGraw-Hill	
PM_ROCK_BASALTSPECIMENPACK.PSD-XPML08	Rock BasaltSpecimenPack	Macmillan/McGraw-Hill	
PM_ROCK_CONGLOMERATE.PSD-XPML08	Rock Conglomerate	Macmillan/McGraw-Hill	
PM_ROCK_GABORO.PSD-XPML08	Rock Gaboro	Macmillan/McGraw-Hill	
PM_ROCK_GNEISS.PSD-XPML08	Rock Gneiss	Macmillan/McGraw-Hill	
PM_ROCK_GRANITE.PSD-XPML08	Rock Granite	Macmillan/McGraw-Hill	

PM_ROCK_LIMESTON E_CHALK.PSD- XPML08	Rock Limestone Chalk	Macmillan/McGraw-Hill	
PM_ROCK_LIMESTON E_COQUINA.PSD- XPML08	Rock Limestone Coquina	Macmillan/McGraw-Hill	
PM_ROCK_LIMESTON E_FOSSILIFEROS.PSD- XPML08	Rock Limestone Fossiliferos	Macmillan/McGraw-Hill	
PM_ROCK_MARBLE.P SD-XPML08	Rock Marble	Macmillan/McGraw-Hill	
PM_ROCK_MARBLE.P SD-XPML08	Rock Marble	Macmillan/McGraw-Hill	
PM_ROCK_PUMICE.PS D-XPML08	Rock Pumice	Macmillan/McGraw-Hill	
PM_ROCK_SANDSTO NESPECIMENPACK.PS D-XPML08	Rock Sandstone SpecimenPack	Macmillan/McGraw-Hill	
PM_ROCK_SCHIST_M ICA.PSD-XPML08	Rock Schist Mica	Macmillan/McGraw-Hill	
PM_ROCK_SHALE.PS D-XPML08	Rock Shale	Macmillan/McGraw-Hill	
C132-01P-	Chapter Opener: Volcanic eruption at night, Krafla, Iceland	Arctic-Images/Getty Images	00-01
C132-06P-	A fossil leaf of a seed fern of the Glossopteris genus, from the Permian period, found in Australia.	Walter Geiersperger/CORBIS	
C132-08P-	Appalachian Mountains ablaze with fall color, Great Smoky Mountains National Park, North Carolina	Tim Fitzharris/Minden Pictures	

C132-09P-	Atlantic and Indian ocean topography, mapped by a combination of satellite altimetry and shipboard echo-sounding readings. Color-coding shows the variation in the depth of the sea floor. Ocean depths are blue, while underwater mountain ranges and peaks are green. The Mid-Atlantic Ridge runs down the center of the Atlantic Ocean, and similar tectonic features are seen in the Indian Ocean. These ridges are where the sea floor splits apart, creating new land. Most of the seafloor topography data were collated in 1997 by Smith and Sandwell. The land topography data was gathered separately, with orange colours showing relatively low-lying areas, and red colours showing high mountains and plateaus.	Science Source/Photo Researchers	
C132-101P-	Student peeling an orange	Hutchings Photography/Digital Light Source	
C132-102P-	Student cutting magazine	Hutchings Photography/Digital Light Source	
C132-103P-	test tube rack	Hutchings Photography/Digital Light Source	
C132-104P-	Graham crackers	Hutchings Photography/Digital Light Source	
C132-105P-	graham cracker experiment	Hutchings Photography/Digital Light Source	
C132-106P-	Graham crackers with peanut butter	Hutchings Photography/Digital Light Source	
C132-107P-	rubber cement being applied to paper	Hutchings Photography/Digital Light Source	
C132-108P-	Bathymetric map of the age of the seafloor	Dr. Peter Sloss, formerly of NGDC/NOAA/NGDC	
C132-10P-	Submarine eruptions at mid-ocean ridges produce fresh lava flows like these "pillow" lavas that form as lava slowly oozes out of a fissure (crack) on the sea floor. These lavas erupted from the southern part of the Juan de Fuca Ridge, lying about 150 miles off the coast of Oregon. This photo was taken about 5 years after the eruption.	Image courtesy of Submarine Ring of Fire 2002 Exploration, NOAA-OE.	

C132-11P-	The Aleutian Islands and the Alaskan peninsula are shown in this image acquired by the MODIS on the Terra satellite, on May 25th, 2006. The Aleutians are a chain of more than 300 small volcanic islands forming an island arc in the Northern Pacific Ocean. They extend about 1,200 miles westward from the Alaskan Peninsula. Nearly all of the islands are part of Alaska, but at the extreme western end of the archipelago are the small, geologically-related, but remote Komandorski Islands, which are considered part of Russia.	NASA	
C132-15P-	Ama Dablam peak, Mt Everest Region, Himalayas, Nepal	Tony Waltham/Getty Images	
C132-16P-	Mount Rainier looms over a hill of Tacoma.	Jim Richardson/CORBIS	
C132-17P-	Black smoker vent. View from a deep sea vehicle of the billowing black 'smoke' being emitted by a hydrothermal vent on the ocean floor. Known as a 'black smoker', this sulphurous mineral-rich fluid pours out of a sulphur-encrusted mound or chimney. This volcanic fluid bubbles up due to geothermal energy in the Earth's crust, at a temperature of over 300 degrees Celsius. Deep sea vents provide an unusual habitat that some organisms are able to exploit. Some primitive forms of extremophile bacteria obtain their energy from the sulphur. Deep sea crabs and other marine forms are visible, adapted to the high temperature, pressure, and sulphur concentrations of this environment.	Dr. Ken MacDonald/Photo Researchers, Inc.	
C132-19P-	The Carrizo Plain in eastern San Luis Obispo County contains the most strikingly graphic portion of the San Andreas Fault.	Lloyd Cluff/CORBIS	
C132-28P-	Lesson 1 Opener: Rift zone, Pingvellir, Southwest Iceland.	Oddur Sigurdsson/Visuals Unlimited, Inc.	
C132-29P-	feature: Ross MacPhee	Clare Flemming	
C132-30P-	feature: Tenrec Sitting on a Rock	Peter Johnson/CORBIS	
C18-35C-	Water being heated on a ring stand. Demonstrating convection currents	Richard Megna/Fundamental Photographs	
MSS12_CRACKERS_G RAHAM-MSS12P	Graham crackers	Hutchings Photography/Digital Light Source	

MSS12_FOAMCORE_BROWN-MSS12P	Brown foam board	Hutchings Photography/Digital Light Source	
MSS12_FROSTING-MSS12P	Can of Chocolate Frosting	The McGraw-Hill Companies	
MSS12_SPOON_PLASTIC-	A thumbnail photograph of a plastic spoon. The photo will be a close up and the background should be contrasting to show the spoon.	Hutchings Photography/Digital Light Source	
MSS12_YOGURT-MSS12P	MSS12_YOGURT	Hutchings Photography/Digital Light Source	
PM_DROPPER.PSD-XPML08	Dropper	Macmillan/McGraw-Hill	
PM_PAPER_WAX.PSD-XPML08	Paper Wax	Macmillan/McGraw-Hill	
C194-01P-	Cassini delivers this stunning vista showing small, battered Epimetheus and smog-enshrouded Titan, with Saturn's A and F rings stretching across the scene.□□The color information in the colorized view is completely artificial: it is derived from red, green and blue images taken at nearly the same time and phase angle as the clear filter image. This color information was overlaid onto the previously released clear filter view (see PIA07786) in order to approximate the scene as it might appear to human eyes.	NASA/JPL/Space Science Institute	00-01
C194-02P-R-MSS12	Starry Sky at Night	UVimages/amanaimages/Corbis	
C194-03P-	Moon and Venus in conjunction□	Diego Barucco/Alamy	
C194-04P-	This picture of asteroid 951 Gaspra is a mosaic of two images taken by the Galileo spacecraft from a range of 5,300 kilometers (3,300 miles), some 10 minutes before closest approach on October 29, 1991. The Sun is shining from the right; phase angle is 50 degrees. The resolution, about 54 meters/pixel, is the highest for the Gaspra encounter and is about three times better than that in the view released in November 1991.	NASA/JPL	

C194-05P-	<p>This perspective image, taken by the High Resolution Stereo Camera (HRSC) on board ESA's Mars Express spacecraft, shows the central part of the 4000-kilometre long Valles Marineris canyon on Mars. The HRSC obtained this image during orbits 334 and 360, on 24 April and 2 May 2004 respectively, with a resolution of approximately 21 metres per pixel for the earlier orbit and 30 metres per pixel for the latter. The perspective view looks northward from an imaginary point above the adjoining highlands into the centre of Valles Marineris. The main Marineris valley, named Melas Chasma (Latin for 'dark chasm'), is situated nearest to the observer, then Candor Chasma (the 'pale chasm') and Ophir Chasma, closest to the horizon. Each valley is approximately 200 kilometres wide and between 5000 and 7000 metres deep. to 289° East. North is up.</p> <p>ctive image, taken by the High Resolution Stereo Camera (HRSC) on board ESA's Mars Express spacecraft, shows the central part of the 4000-kilometre long Valles Marineris canyon on Mars.</p>	ESA/DLR/FU Berlin (G. Neukum)	
C194-06P-	Mercury Shows Its True Colors □	NASA/Johns Hopkins University Applied Physics Laboratory/Carnegie Institution of Washington	
C194-07P-	Looking Toward the South Pole of Mercury	NASA/Johns Hopkins University Applied Physics Laboratory/Carnegie Institution of Washington	
C194-09P-	Ultraviolet image of Venus' clouds as seen by the Pioneer Venus Orbiter (Feb. 26, 1979).	NASA	
C194-100P-	Bottle with thermometers leaning against shoe box	Hutchings Photography/Digital Light Source	

C194-10P-	This global view of the surface of Venus is centered at 180 degrees east longitude. Magellan synthetic aperture radar mosaics from the first cycle of Magellan mapping are mapped onto a computer-simulated globe to create this image. Data gaps are filled with Pioneer Venus Orbiter data, or a constant mid-range value. Simulated color is used to enhance small-scale structure. The simulated hues are based on color images recorded by the Soviet Venera 13 and 14 spacecraft. The image was produced by the Solar System Visualization project and the Magellan science team at the JPL Multimission Image Processing Laboratory and is a single frame from a video released at the October 29, 1991, JPL news conference.	NASA/JPL	
C194-12P-	Maat Mons is displayed in this computer generated three-dimensional perspective of the surface of Venus. The viewpoint is located 634 kilometers (393 miles) north of Maat Mons at an elevation of 3 kilometers (2 miles) above the terrain. Lava flows extend for hundreds of kilometers across the fractured plains shown in the foreground, to the base of Maat Mons.	NASA/JPL	
C194-13P-	The atmosphere is a blue haze that thins as it rises above the curve of the Earth's surface. Called the limb, it provides a view of the structure of the atmosphere. Orbiting scientific instruments look at the limb to measure how the concentrations of trace gasses vary with altitude. One of these instruments, the Shuttle Ozone Limb Sounding Experiment-2, flew in the cargo bay of the Space Shuttle Columbia on its final flight	NASA	
C194-14P-	Oahu, Hawaii, wave	Comstock/JupiterImages	
C194-15P-	The Blue Marble - west	NASA Goddard Space Flight Center	
C194-16P-	Arenal Volcano erupting lava at night, Costa Rica	Image Ideas / PictureQuest	

C194-17P-	Color mosaic of Olympus Mons volcano on Mars from the Viking 1 Orbiter. The mosaic was created using images from orbit 735 taken 22 June 1978. Olympus Mons is about 600 km in diameter and the summit caldera is 24 km above the surrounding plains. The complex aureole terrain is visible at the top of the frame. North is up. (Viking 1 Orbiter MH20N133-735A)	NASA/JPL	
C194-19P-	June 2001: Mars Opposition and Equinox □ MGS MOC Release No. MOC2-285, 12 June 2001	NASA/JPL/Malin Space Science Systems	
C194-20P-	This image from HiRISE image PSP_003583_1425 shows gully channels in a crater in the southern highlands of Mars, taken by the High Resolution Imaging Science Experiment (HiRISE) camera on the Mars Reconnaissance Orbiter. The gullies emanating from the rocky cliffs near the crater's rim (upper left) show meandering and braided patterns typical of water-carved channels. North is approximately up and illumination is from the left; scale, 26 centimeters per pixel. □ □	NASA/JPL/University of Arizona	
C194-25P-	This view of Jupiter was taken by Voyager 1. This image was taken through color filters and recombined to produce the color image. This photo was assembled from three black and white negatives by the Image Processing Lab at Jet Propulsion Laboratory. JPL manages and controls the VOyager project for NASA's Office of Space Science. □	NASA/JPL	

C194-26P-	<p>The rings of Jupiter proved to be unexpectedly bright when seen with the Sun nearly behind them. Strong forward scattering of sunlight is characteristic of small particles. This view was obtained by Voyager 2 on July 10 from a perspective inside the shadow of Jupiter. The distance of the spacecraft from the rings was about 1.5 million kilometers. Although the resolution has been degraded by camera motion during the time exposures, these images reveal the rings have some radial structure. □</p>	NASA/JPL	
C194-27P-	<p>This processed color image of Jupiter was produced in 1990 by the U.S. Geological Survey from a Voyager image captured in 1979. The colors have been enhanced to bring out detail. Zones of light-colored, ascending clouds alternate with bands of dark, descending clouds. The clouds travel around the planet in alternating eastward and westward belts at speeds of up to 540 kilometers per hour. Tremendous storms as big as Earthly continents surge around the planet. The Great Red Spot (oval shape toward the lower-left) is an enormous anticyclonic storm that drifts along its belt, eventually circling the entire planet.</p>	NASA/JPL/USGS	
C194-32P-	<p>Looming like a giant flying saucer in our outer solar system, Saturn puts on a show as the planet and its magnificent ring system nod majestically over the course of its 29-year journey around the Sun. A series of Hubble Space Telescope images, captured from 1996 to 2000, show Saturn's rings open up from just past edge-on to nearly fully open as it moves from autumn towards winter in its Northern Hemisphere (for the composite view of all images see PIA03156).</p>	<p>NASA and The Hubble Heritage Team (STScI/AURA) Acknowledgment: R.G. French (Wellesley College), J. Cuzzi (NASA/Ames), L. Dones (SwRI), and J. Lissauer (NASA/Ames)</p>	

C194-33P-	A global detached haze layer and discrete cloud-like features high above Titan's northern terminator (day-night transition) are visible in this image acquired on October 24, 2004, as the Cassini spacecraft neared its first close encounter with Titan. This full disk view of Titan is a colorized version of the ultraviolet image released on October 25, 2004 (PIA06120). The globe of Titan and the haze have been given colors that are close to what the natural colors are believed to be.	NASA/JPL/Space Science Institute □	
C194-34P-	This close view of Rhea prominently shows two large impact basins on the ancient and battered moon. The great age of these basins is suggested by the large number of smaller craters that are overprinted within them. □ □ Ejecta from the bright, relatively young crater seen in PIA07609 spreads from the eastern limb.	NASA/JPL/Space Science Institute	
C194-35P-	This false-color mosaic shows the entire hemisphere of Iapetus (1,468 kilometers, or 912 miles across) visible from Cassini on the outbound leg of its encounter with the two-toned moon in Sept. 2007. The central longitude of the trailing hemisphere is 24 degrees to the left of the mosaic's center.	NASA/JPL/Space Science Institute	
C194-36P-	This southerly view of Dione shows enormous canyons extending from mid-latitudes on the trailing hemisphere, at right, to the moon's south polar region. □ □ This view looks toward the Saturn facing side of Dione (1,126 kilometers, or 700 miles across) and is centered on 22 degrees south latitude, 359 degrees west longitude. North on Dione is up; the moon's south pole is seen at bottom.	NASA/JPL/Space Science Institute □	

C194-37P-	<p>With this full-disk mosaic, Cassini presents the best view yet of the south pole of Saturn's moon Tethys. □ □ The giant rift Ithaca Chasma cuts across the disk. Much of the topography seen here, including that of Ithaca Chasma, has a soft, muted appearance. It is clearly very old and has been heavily bombarded by impacts over time. □</p>	<p>NASA/JPL/Space Science Institute □</p>	
C194-38P-	<p>These two pictures of Uranus -- one in true color (left) and the other in false color -- were compiled from images returned Jan. 17, 1986, by the narrow-angle camera of Voyager 2. The spacecraft was 9.1 million kilometers (5.7 million miles) from the planet, several days from closest approach. The picture at left has been processed to show Uranus as human eyes would see it from the vantage point of the spacecraft. The picture is a composite of images taken through blue, green and orange filters.</p>	<p>NASA/JPL</p>	
C194-40P-	<p>This wider view of Uranus reveals the planet's faint rings and several of its satellites. The area outside Uranus was enhanced in brightness to reveal the faint rings and satellites. The outermost ring is brighter on the lower side, where it is wider. It is made of dust and small pebbles, which create a thin, dark, and almost vertical line across the right side of Uranus (especially visible on the natural-color image). □ □ The bright satellite on the lower right corner is Ariel, which has a snowy white surface. Five small satellites with dark surfaces can be seen just outside the rings. Clockwise from the top, they are: Desdemona, Belinda, Portia, Cressida, and Puck. Even fainter satellites were imaged in deeper exposures, also taken with the Advanced Camera in August 2003.</p>	<p>NASA/ESA and Erich Karkoschka, University of Arizona</p>	

C194-41P-	<p>During August 16 and 17, 1989, the Voyager 2 narrow-angle camera was used to photograph Neptune almost continuously, recording approximately two and one-half rotations of the planet. These images represent the most complete set of full disk Neptune images that the spacecraft will acquire. This picture from the sequence shows two of the four cloud features which have been tracked by the Voyager cameras during the past two months. The large dark oval near the western limb (the left edge) is at a latitude of 22 degrees south and circuits Neptune every 18.3 hours. The bright clouds immediately to the south and east of this oval are seen to substantially change their appearances in periods as short as four hours. The second dark spot, at 54 degrees south latitude near the terminator (lower right edge), circuits Neptune every 16.1 hours. This image has been processed to enhance the visibility of small features, at some sacrifice of color fidelity. The Voyager Mission is conducted by JPL for NASA's Office of Space Science and Applications.</p>	NASA/JPL	
C194-42P-	<p>In Neptune's outermost ring, 39,000 miles out, material mysteriously clumps into three arcs. Voyager 2 acquired this image as it encountered Neptune in August of 1989.□</p>	NASA/JPL	
C194-43P-	<p>The smallest features that can be seen in this false color image of Neptune's largest satellite, Triton, are about 47 km (29 miles) across. The image, taken by Voyager 2 early in the morning of Aug. 23, 1989, is a composite of three images taken through ultraviolet, green, and violet filters.</p>	NASA/JPL □	

C194-49P-	<p>This comet, also known as C/2006 P1, was the brightest to appear in the sky since Ikeya-Seki in 1965. Due to its proximity to the Sun it could only be seen at dusk. It was visible in the Northern Hemisphere until 13th January 2007, when it passed the Sun and became a Southern Hemisphere object. It attained a maximum brightness of magnitude -6 around 14th January. The tail is formed of particles of ice and dust expelled by the comet as it was heated by the Sun. The comet was discovered by Rob McNaught of Siding Spring Observatory on 7th August 2006. Photographed from Siding Spring Observatory, Australia, on 20th January 2007.□</p>	Gordon Garradd/SPL/Photo Researchers, Inc.	
C194-50P-	<p>This is the clearest view yet of the distant planet Pluto and its moon, Charon, as revealed by NASA's Hubble Space Telescope (HST). The image was taken by the European Space Agency's Faint Object Camera on February 21, 1994 when the planet was 2.6 billion miles (4.4 billion kilometers) from Earth; or nearly 30 times the separation between Earth and the sun.</p>	Dr. R. Albrecht, ESA/ESO Space Telescope European Coordinating Facility; NASA	
C194-51P-	<p>This is a NASA/ESA Hubble Space Telescope colour image of Ceres, the largest object in the asteroid belt.</p>	NASA, ESA, and J. Parker (Southwest Research Institute)	
C194-52P-	<p>This is an image of the dwarf planet Eris (centre) and its satellite Dysnomia (at 9 o'clock position) taken with NASA/ESA's Hubble Space Telescope on Aug. 30, 2006. Hubble observations were obtained on Dec. 3, 2005 and Aug. 30, 2006 using the Advanced Camera for Surveys.</p>	NASA, ESA, and M. Brown (California Institute of Technology)	
C194-53P-	<p>This image mosaic of asteroid 253 Mathilde is constructed from four images acquired by the NEAR spacecraft on June 27, 1997. This was taken from a distance of 2,400 km (1,500 miles). Sunlight is coming from the upper right. The part of the asteroid shown is about 59 by 47 km (36 by 29 miles) across. Details as small as 380 meters (1,250 feet) can be discerned.</p>	NASA/JPL/JHUAPL	

C194-57P-	During its examination of the asteroid Ida, the Galileo spacecraft returned images of a second object, Dactyl--the first confirmed satellite or moon of an asteroid; the much smaller moon is visible to the right of Ida.	NASA/JPL/USGS	
C194-58P-	A 3-D computer model of the asteroid Vesta synthesized from Hubble topographic data. The crater's 8-mile high central peak can clearly be seen near the pole. The surface texture on the model is artificial, and is not representative of the true brightness variations on the asteroid. □ □ Elevation features have not been exaggerated.	Ben Zellner (Georgia Southern University), Peter Thomas (Cornell University), NASA/ESA	
C194-59P-	Views of the asteroid Eros generated by data from the laser rangefinder. The 3-D model was generated from laser rangefinder data and the color was applied based on color images.	NASA/Goddard Space Flight Center Scientific Visualization Studio	
C194-60P-	Hale-Bopp comet, 1997 (long exposure). Image was taken through an astronomical telescope from Jenner, California, USA, when the comet was brightest and closest to Earth.	Roger Ressmeyer	
C194-61P-	This image shows the comet Wild 2, which NASA's Stardust spacecraft flew by on Jan. 2, 2004. This image is the closest short exposure of the comet, taken at an 11.4-degree phase angle, the angle between the camera, comet and the Sun. The listed names on the diagram (see Figure 1) are those used by the Stardust team to identify features. "Basin" does not imply an impact origin.	NASA/JPL-Caltech	
C194-62P-	Aerial view of Arizona's Meteor Crater under a rare blanket of snow. The crater was formed by the impact of a large meteor about 50,000 years ago. December 1985	Jonathan Blair/CORBIS	
C194-63P-	AMNH L1 Willamette Meteorite Hayden Planetarium Museum of Natural History Manhattan New York □	Ambient Images Inc./Alamy	
C194-64P-	Student with ruler and pencil	Hutchings Photography/Digital Light Source	
C194-65P-	Student drawing an ellipse	Hutchings Photography/Digital Light Source	

C194-68P-	Student holding strings with two different sized spheres attached to the ends.	Hutchings Photography/Digital Light Source	
C194-69P-	dropping marbles	Hutchings Photography/Digital Light Source	
C194-70P-	Student kneeling on floor with tape and yard stick	Hutchings Photography/Digital Light Source	
C194-71P-	Denton Ebell	American Museum of Natural History	
C194-72P-	LOS ANGELES, CA - JANUARY 08: Dr. Neil deGrasse Tyson (L) and senior executive producer Paula S. Apsell speak during the PBS portion of the 2009 Winter Television Critics Association Press Tour at the Universal Hilton Hotel on January 8, 2009 in Los Angeles, California.	Frederick M. Brown/Getty Images	
C194-73P-R-MSS12	Ancient, White Dwarf Stars in the Milky Way Galaxy	NASA and H. Richer (University of British Columbia)	
MSS12_METER_STICK-K-	A thumbnail photograph of a meterstick. The photo will be a close up and the focus should be close enough to show markings on the face, but not such that the numbers are discernible. The meterstick could be wood or plastic, but should be one full meter in length. One of each material in a side by side is a potential alternative.	Hutchings Photography/Digital Light Source	
MSS12_TAPE_MASKING-MSS12P	Masking tape	Hutchings Photography/Digital Light Source	
MSS12_TAPE_REGISTER-MSS12P	Register tape	Hutchings Photography/Digital Light Source	
C190-01P-	Chapter Opener: The Hubble Space Telescope with a blue Earth in the background (4128 x 4232)	Stocktrek/age fotostock	00-01
C190-02P-	Light Echo Illuminates Dust Around Supergiant Star V838 Monocerotis	NASA and The Hubble Heritage Team (AURA/STScI)	
C190-04P-	One of the first photographs of the completed mirror of the 10-meter Keck Telescope, the world's largest. The mirror was constructed from 36 hexagonal segments	Roger Ressmeyer/CORBIS	

C190-05P-	The twin Keck Telescopes in evening twilight Mauna Kea Observatory Hawaii	Richard Wainscoat/Alamy	
C190-06P-	Very Large Array Radio telescope iNew Mexico	Images Etc Ltd/Getty Images	
C190-07P-	Supernova discovered by Danish astronomer, Tycho Brahe in 1572, picked-up by radio telescopes in 1952.	Time & Life Pictures/Getty Images	
C190-08P-	Two views of the star Capella, taken with different telescope techniques. The one on the left was taken with a standard reflecting telescope. The one on the right uses an adaptive optics system to correct for atmospheric disturbance, allowing for much higher resolution.	Starfire Optical Range/USAF/Roger Ressmeyer/CORBIS	
C190-100P-	Student lab, hand lens	Hutchings Photography/Digital Light Source	
C190-101P-	Students with flashlight and prism	Hutchings Photography/Digital Light Source	
C190-102P-	Student lab, lenses, 1	Hutchings Photography/Digital Light Source	
C190-104P-	Balloon lab	Hutchings Photography/Digital Light Source	
C190-105P-	Student lab, balloon and CD	Hutchings Photography/Digital Light Source	
C190-106P-	Student lab, ping-pong ball	Hutchings Photography/Digital Light Source	
C190-107P-	Student looking at fish tank	Hutchings Photography/Digital Light Source	
C190-108P-	Student filling out worksheet with various materials	Hutchings Photography/Digital Light Source	
C190-109P-	Student assembling structure out of straws	Hutchings Photography/Digital Light Source	
C190-10P-	The many-color-changing Hubble. Our Hubble is a chameleon. It constantly change its looks according to its environment. Can anything be more beautiful?	NASA	

C190-11P-	This stunning false-color picture shows off the many sides of the supernova remnant Cassiopeia A, which is made up of images taken by three of NASA's Great Observatories, using three different wavebands of light. Infrared data from the Spitzer Space Telescope are colored red; visible data from the Hubble Space Telescope are yellow; and X-ray data from the Chandra X-ray Observatory are green and blue. Located 10,000 light-years away in the northern constellation Cassiopeia, Cassiopeia A is the remnant of a once massive star that died in a violent supernova explosion 325 years ago. It consists of a dead star, called a neutron star, and a surrounding shell of material that was blasted off as the star died. The neutron star can be seen in the Chandra data as a sharp turquoise dot in the center of the shimmering shell.	NASA/JPL-Caltech/STScI/CXC/SAO	
C190-12P-	An artist's rendering of the James Webb Space Telescope in orbit. Set to launch to space in 2013, the telescope is NASA's next-generation premier space observatory, designed to explore deep space phenomena and provide clues about the formation of the universe. Cryogenic testing of the telescope's first high-powered mirrors has been completed at NASA's Marshall Space Flight Center in Huntsville, Ala.	NASA/GSFC	
C190-13P-	These images of the spiral galaxy Messier 101 were taken by the Spitzer, Hubble, and Chandra telescopes. NASA released these images on February 10, 2009 as part of their celebration of the International Year of Astronomy 2009. These images are on display at the Adler Planetarium.	NASA	
C190-14P-	aerial view of a space shuttle launch	Stockbyte/Alamy	
C190-15P-	Space shuttle Atlantis lifting off from Kennedy Space Center's launch complex 39 (April 8, 2002)	Stocktrek/age fotostock	

C190-16P-	On Mar. 16, 1926, Dr. Robert H. Goddard launched the world's first liquid-fueled rocket in Auburn, Mass., laying the foundation for rocket technology. Goddard stands next to the rocket before launch as it stood in the frame from which it was fired. Although the rocket flew for only 2.5 seconds, it climbed 41 feet and landed 184 feet away. From 1930 to 1941, Goddard made substantial progress in the development of progressively larger rockets, which attained altitudes of 2,400 meters, or about 1.5 miles, and refined his equipment for guidance and control, his techniques of welding, and his insulation, pumps, and other associated equipment.	NASA	
C190-17P-	Explorer 1 satellite launch	NASA/SCIENCE PHOTO LIBRARY	
C190-18P-	Mariner 2 was the world's first successful interplanetary spacecraft. Launched Aug. 27, 1962, on an Atlas-Agena rocket, Mariner 2 passed within about 34,000 kilometers (21,000 miles) of Venus, sending back valuable new information about interplanetary space and the Venusian atmosphere. Mariner 2 recorded the planet's temperature for the first time, revealing the its very hot atmosphere of about 500 degrees Celsius (900 degrees Fahrenheit). The spacecraft's solar wind experiment was the first to measure the density, velocity, composition and variation over time of the solar wind. Subsequent missions have further explored Venus, detecting electrical activity, which was confirmed by the European Space Agency's Venus Express earlier this week.	NASA/JPL	
C190-19P-	View of Pioneer 10 leaving Earth and passing the moon	Stocktrek/CORBIS	
C190-20P-	Voyager 1 spacecraft, an unmanned probe of the outer solar system and beyond, famous for its exploration of Saturn.	Atlas Photo Bank/Photo Researchers, Inc	

C190-21P-	Artist's conception of Pioneer Venus orbiter over Venus. The spacecraft are managed by NASA's Ames Research Center, Mountain View, CA. The spacecraft were built by Hughes Aircraft Co. of Los Angeles. Undated photo.	AP Images	
C190-22P-	The Phoenix Mission, slated for launch in August 2007, is the first project in NASA's openly competed program of Mars Scout missions. The mission's plan is to land in icy soils near the north polar permanent ice cap of Mars and explore the history of the water in these soils and any associated rocks, while monitoring polar climate. The spacecraft and its instruments are designed to analyze samples collected from up to a half-meter (20 inches) deep by a robotic arm. The arm extends forward in this artist's concept of the lander on Mars.	NASA/JPL	
C190-23P-	In one of the most famous photographs of the 20th Century, Apollo 11 astronaut Buzz Aldrin walks on the surface of the moon near the leg of the lunar module Eagle. Apollo 11 Commander Neil Armstrong took this photograph with a 70mm lunar surface camera. Armstrong and Aldrin explored the Sea of Tranquility for two and a half hours while crewmate Michael Collins orbited above in the command module Columbia.	NASA	
C190-24P-	Space shuttle Atlantis launches from Kennedy Space Center in Florida	Stocktrek/age fotostock	
C190-25P-	S119-E-009662 (25 March 2009) --- Backdropped by a blue and white Earth, the International Space Station is seen from Space Shuttle Discovery as the two spacecraft begin their relative separation. Earlier the STS-119 and Expedition 18 crews concluded 9 days, 20 hours and 10 minutes of cooperative work onboard the shuttle and station. Undocking of the two spacecraft occurred at 2:53 p.m. (CDT) on March 25, 2009.	NASA	

C190-26P-	Dental braces fixed to the teeth of a girl. Fixed braces consist of metal brackets cemented to each tooth, with an adjustable wire threaded through each bracket. Braces (or orthodontic devices) are worn to correct poor alignment between upper & lower jaws (malocclusions) or overcrowding of teeth. Fixed braces are used when many teeth need repositioning as they give more precise control over teeth movement than removable braces.	Alex Bartel/Photo Researchers, Inc.	
C190-27P-	Crater in Western Arabia Terra with Stair-Stepped Hills and Dark Dunes	NASA/JPL/University of Arizona	
C190-28P-	Extreme Ultraviolet Imaging Telescope (EIT) image of a huge, handle-shaped prominence taken on Sept. 14,1999 taken in the 304 angstrom wavelength - Prominences are huge clouds of relatively cool dense plasma suspended in the Sun's hot, thin corona. At times, they can erupt, escaping the Sun's atmosphere. Emission in this spectral line shows the upper chromosphere at a temperature of about 60,000 degrees K. Every feature in the image traces magnetic field structure. The hottest areas appear almost white, while the darker red areas indicate cooler temperatures.	ESA./NASA/SOHO	
C190-29P-	Artist's depiction of MESSENGER at Mercury.	NASA/Johns Hopkins University Applied Physics Laboratory/Carnegie Institution of Washington.	
C190-30P-	A NASA computer-generated image of what the Mars Explorer Rover, Spirit would look like on the surface of Mars, before it started to take rock samples with it's extendable arm. The NASA Spirit probe searched for signs that the planet once supported life.	NASA/epa/CORBIS	

C190-31P-	This artist's conception shows Titan's surface with Saturn appearing dimly in the background through Titan's thick atmosphere of mostly nitrogen and methane. The Cassini spacecraft flies overhead with its high-gain antenna pointed at the Huygens probe as it nears the surface.	Craig Attebery/NASA	
C190-32P-	Artist's concept of the New Horizons spacecraft during its planned encounter with Pluto and its moon, Charon. The craft's miniature cameras, radio science experiment, ultraviolet and infrared spectrometers and space plasma experiments would characterize the global geology and geomorphology of Pluto and Charon, map their surface compositions and temperatures, and examine Pluto's atmosphere in detail. The spacecraft's most prominent design feature is a nearly 7-foot (2.1-meter) dish antenna, through which it would communicate with Earth from as far as 4.7 billion miles (7.5 billion kilometers) away.	NASA/Johns Hopkins University Applied Physics Laboratory/Southwest Research Institute (NASA/JHUAPL/SwRI)	
C190-33P-	NASA is testing an inflatable lunar habitat at McMurdo Station	Michael Hixenbaugh/National Science Foundation	
C190-34P-	Mammoth Hot Springs	Arco Images GmbH/Alamy	
C190-35P-	Galileo image of Europa	Galileo Project/JPL/NASA	
C190-36P-	Reddish spots and shallow pits pepper the ridged surface of Jupiter's moon, Europa, in this view combining information from images taken by NASA's Galileo spacecraft during two different orbits around Jupiter. The dark spots are called "lenticulae," the Latin term for freckles. Their similar sizes and spacing suggest that Europa's icy shell may be churning away like a lava lamp, with warmer ice moving upward from the bottom of the ice shell while colder ice near the surface sinks downward. Other evidence has shown that Europa likely has a deep melted ocean under its icy shell. Ruddy ice erupting onto the surface to form the lenticulae may hold clues to the composition of the ocean and to whether it could support life.	NASA/JPL/University of Arizona/University of Colorado	

C190-37P-	Artist's composite of Kepler in a starfield with the Earth, Moon, Sun and stars.	NASA/Ames Wendy Stenzel	
C190-38P-	September 1, 2005 AMSR-E Sea Surface Temperature	NASA	
C190-39P-	Artist's concept of NASA's Solar Probe spacecraft making its daring pass toward the sun, where it will study the forces that create solar wind. The Johns Hopkins University Applied Physics Laboratory in Laurel, Md., will design and build the spacecraft, on a schedule to launch in 2015. Preliminary designs include a 9-foot-diameter, 6-inch-thick, carbon-foam-filled solar shield atop the spacecraft body, and two sets of solar arrays that would retract or extend as the spacecraft swings toward or away from the sun -- making sure the panels stay at proper temperatures and power levels.	NASA/Johns Hopkins University Applied Physics Laboratory	
C190-40P-	Outcrops define the flank of "Husband Hill" inside Gusev Crater in this false-color view taken by the Mars rover Spirit on April 13, 2005.	NASA/JPL/Cornell	
MSS12_CRAFT_SUPPLIES-MSS12P	Shot of craft sticks, toothpicks, drinking straws, chenille stems, glue, brads, and markers	The McGraw-Hill Companies	
MSS12_CREATIVE_BUILDING_MATERIALS-MSS12P	Shot of newspaper, bubble wrap, aluminum foil, plastic wrap, construction paper, cardboard, and a spool of wire.	The McGraw-Hill Companies	
MSS12_CUPS_DISPOSABLE_VARIETY-MSS12P	Shot of muffin cups, cardboard egg carton, paper cups, foam cups, lids, and dome lids	The McGraw-Hill Companies	
MSS12_LENS_SET-MSS12P	Set of 6 optical lens.	Digital Light Source	
MSS12_OFFICE_SUPPLIES-MSS12P	Shot of transparent tape, stapler, scissors, ruler, paper clips, push pins, rubber bands, and 1 hole punch.	The McGraw-Hill Companies	
MSS12_PENCIL_WAX-MSS12P	wax marking pencil.	The McGraw-Hill Companies	
MSS12_PUTTY_SILICON-MSS12P	2-3 blobs of silicon putty, or Silly Putty, in different forms such as sphere, oblong, oozing with different markings from fingers. Try for different colors.	The McGraw-Hill Companies	

MSS12_TUBES_CARD BOARD-MSS12P	several cardboard tubes of varying lengths and diameters	The Mcgraw-Hill Companies	
C202-01P-	Chapter Opener: Goosegrass fruit. Coloured scanning electron micrograph (SEM) of the hooked fruit of a goosegrass plant (<i>Galium aparine</i>). The hooks become lodged in the fur of passing animals, ensuring that the plant's seeds, which are held in the fruit, are well dispersed before germination. Goosegrass is an annual weed that is native to Eurasia. Magnification: x38 at 6x7cm size.	Andrew Syred/Photo Researchers	000-00
C202-01P--A	Chapter Opener: Goosegrass fruit. Coloured scanning electron micrograph (SEM) of the hooked fruit of a goosegrass plant (<i>Galium aparine</i>). The hooks become lodged in the fur of passing animals, ensuring that the plant's seeds, which are held in the fruit, are well dispersed before germination. Goosegrass is an annual weed that is native to Eurasia. Magnification: x38 at 6x7cm size.	Andrew Syred/Photo Researchers	
C202-02P-	Lesson Opener: Giant Green Sea Anemones (<i>Anthopleura xanthogrammica</i>), Goose Barnacles (<i>Lepas anserifera</i>) group and Ochre Sea Stars (<i>Pisaster ochraceus</i>) at low tide, Olympic National Park, Washington	Konrad Wothe/Minden Pictures	
C202-03P-	Half a loaf of bread with multiple mold species growing	Mark Steinmetz	
C202-04P-	Plasmodial Slime Mold. Many-Headed Slime (<i>Physarum polycephalum</i>) in its active traveling plasmodial form, shortly before fruiting.	Mark Steinmetz	
C202-05P-	Asian Lady Beetle (<i>Harmonia axyridis</i>)	Andre Skonieczny/Photolibrary	
C202-06P-	Algae covered pond	Turner Forte/Getty Images	
C202-07P-	Hawaii, Day octopus (<i>Octopus cyanea</i>) squirting ink to escape predator.	Pacific Stock/SuperStock	
C202-08P-	Land Iguana <i>Conolophus subcristatus</i> biting off the fruit of a Giant droopy prickly pear cactus <i>Opuntia</i> at Galapagos	Carolyn Jenkins/Alamy	

C202-09P-	Lesson Opener: Cortical neurons (nerve cells) growing in culture. Note the large, round, textured, astrocytic glial cell (neuroglial cell). Neuroglia are supporting cells in the nervous system. Neurons have a large cell body with several long processes extending from it, usually one thick axon and several thinner dendrites. The axon carries nerve impulses away from the neuron. Its branching ends make contacts with other neurons and with muscles or glands. SEM, X295...	Dr. Dennis Kunkel/Visuals Unlimited	
C202-100P-	Close-up of a burning white candle against a dark blue background	SuperStock/age fotostock	
C202-101P-	Still life of a single brown hiking boot against a white background	Ryan McVay/Getty Images	
C202-102P-	Human lymphocyte, nucleus: blue, mitochondria: orange, vesicles: teal, golgi apparatus: purple, centrioles: pink, endoplasmic reticulum: green. TEM X25710	Dr. Gopal Murti/Visuals Unlimited	
C202-103P-	student looking through a compound microscope which has a slide on it. The student should be shown adjusting the fine adjustment knob. Student should be wearing an apron and have goggles around his/her neck.	Hutchings Photography/Digital Light Source	
C202-104P-	Beta haemolytic streptococci bacteria	Image Source/Getty Images	
C202-105P-	Wild mushroom cluster (Inky Caps) at the base of a tree	IT Stock/age fotostock	
C202-106P-	Photomicrograph of Euglena paramylum. This alga is displaying its stigma, its nucleus, and its paramylum. Euglena is an alga that can change shape very quickly, enabling it to move around and through obstacles. It moves with the aid of a single flagellum that emanates from a very small depression called the reservoir.	Stephen Durr/The McGraw-Hill Companies	
C202-107P-	The Yellow Trillium and purple phacalia (Miami Mist) wildflowers in The Great Smoky Mountain National Park USA	America/Alamy	
C202-108P-	Pika sitting on rock	Getty Images	
C202-109P-	Minilab - Side view of an untied white athletic shoe against a white background	Photodisc	

C202-10P-	Teenage girl looking into a microscope	Jack Hollingsworth/Getty Images	
C202-111P-	Minilab - High heel shoe against a white background	Stockbyte/Getty Images	
C202-11P-	Color enhanced transmission electron micrograph (TEM) of a plant cell showing major organelles including the nucleus, Golgi bodies, mitochondria, chloroplasts, endoplasmic reticulum, vacuoles, etc. Magnification: 15,000 at 8x10 inches.	Biophoto Associates/Photo Researchers	
C202-12P-	Rough endoplasmic reticulum with numerous ribosome's on cisternae surface ,from a neuron, . TEM X19030	Dennis Kunkel Microscopy, Inc./Visuals Unlimited	
C202-13P-	Plant leaf cell showing, by colors, the large vacuole ,pale green,, nucleus ,orange,, and chloroplasts ,bright green and red,. TEM X11,000	Dr. Henry Aldrich/Visuals Unlimited	
C202-15P-	Chipmunk (Tamias striatus) standing on log, Valparaiso, Indiana, USA	Frank Cezus/Getty Images	
C202-16P-	This eukaryotic cell ,lymphocyte white blood cell, shows numerous major organelles such as a large nucleus ,orange, and multiple mitochondria ,blue,. TEM X20,550	Dr. Gopal Murti/Visuals Unlimited	
C202-17P-	Adult Dog Flea (Ctenocephalides canis). LM (approx X10 at 35mm)	Biodisc/Visuals Unlimited	
C202-51P-	The medicinal leech Hirudo medicinalis sucking blood from a human arm.	Martin Dohrn/Photo Researchers	
C202-53P-	Careers in Science - Mark Siddal catching leeches	Mark Siddal/American Museum of Natural History	
C202-53P--A	Careers in Science - Mark Siddal catching leeches	Mark Siddal/American Museum of Natural History	
C202-54P-	Careers in Science - Mark Siddal's leg wih leeches	Mark Siddal/American Museum of Natural History	
C261-01P-	Chapter Opener: Raccoon Raiding a campsite	Patrick Ward/CORBIS	000-00
C261-01P--A	Chapter Opener: Raccoon Raiding a campsite	Patrick Ward/CORBIS	
C261-02P-	Chapter Opener: Green sea anemones and blood sea star in tidal pool on Clallam Bay	GEORGE GRALL/National Geographic Stock	

C261-03P-	Vienna, Austria. A woman feeds pigeons in the city park.	Taylor S. Kennedy/National Geographic/Getty Images	
C261-04P-	Joshua Trees and Sunlight	Silvia Otte/Getty Images	
C261-05P-	Waterfall and stream	Image Source/PunchStock	
C261-06P-	House martin in flight to nest with young . Delichon urbica	Stephen Dalton/Photo Researchers	
C261-07P-	glass aquarium with guppies	Maximilian Weinzierl/Alamy	
C261-08P-	Foreground show burned coyote brush, prime mountain beaver habitat, immediately following the 1995 Vision Fire. Estuaries of Point Reyes National Seashore are visible in the background.	Gary Fellers/USGS	
C261-09P-	Mountain beaver (<i>Aplodontia rufa</i>).	Tom McHugh/Photo Researchers	
C261-100P-	lab - postcard w/ pencil	The McGraw-Hill Companies	
C261-101P-	photo of a student kneeling or sitting in a yard. There may be trees or bushes around. The student is observing the plants and insects in the yard and is making notes in a science notebook.	Hutchings Photography/Digital Light Source	
C261-102P-	CANADIAN LYNX with Snowshoe Hare <i>Felis canadensis</i> (its main food source). Rocky Mountains, North America	Thomas Kitchin & Victoria Hurst/NHPA/Photoshot	
C261-103P-	LAB TECHNICIAN COMPARING ROOT SYSTEMS OF LEMON TREES (ON RIGHT) GROWN WITH MYCORRHIZA AND (ON LEFT) GROWN WITHOUT	Grant Heilman Photography/Alamy	
C261-104P-	student placing no more than 5 radish seeds into a plant pot filled with potting soil. A bag or jar of potting soil and a packet of radish seeds is sitting next to the student and pot.	Hutchings Photography/Digital Light Source	
C261-105P-	student about to drop two effervescent antacid tablets (such as Alka-Seltzer) into a paper cup full of water.	Hutchings Photography/Digital Light Source	
C261-106P-	close up of a student's hand placing 3-4 mealworms into a glass jar half-filled with steel-cut oats. Inside the jar are two wedges of sliced apple. The jar is uncovered.	Hutchings Photography/Digital Light Source	

C261-107P-	two students standing around a glass aquarium (5-10 gallon). The aquarium/terrarium has a layer of soil on the bottom about 1-2 inches deep. One student is holding several small plants as the other student is beginning to add a plant to the inside of the aquarium/terrarium.	Hutchings Photography/Digital Light Source	
C261-108P-	lab - Close-up of a Field Cricket (<i>Gryllus pennsylvanicus</i>) against a white background	Burke/Triolo Productions/Brand X Pictures/Getty Images	
C261-109P-	lab - House Mouse on a white backdrop	Redmond Durrell/Alamy	
C261-10P-	Lesson Opener - PRAYING MANTIS IN COSTA RICA	JH Pete Carmichael/Getty Images	
C261-110P-	lab - Profile view of a Giant Millipede (<i>Spirostreptida</i> order) against a white background	IT Stock Free/Alamy	
C261-111P-	lab - Close-up, overhead view of a Garden Snail (<i>Helix aspersa</i>) on a rock.	IT Stock Free/Alamy	
C261-112P-	lab - two goldfish against a white background	G.K. & Vikki Hart/Getty Images	
C261-11P-	Regal angelfish, <i>Pygoplites diacanthus</i> , reef scene composited below water palm tree covered island. All images were shot at the same time in.. Fiji.	David Fleetham/Tom Stack & Associates	
C261-12P-	Bluebell flowers (<i>Hyacinthoides</i> sp.) in woodland. Photographed in spring, in Dorset, UK.	Jeremy Walker/Photo Researchers	
C261-13P-	White tail fawn eating a poppy blossom in backyard garden next to fence	Gay Bumgarner/Alamy	
C261-14P-	Black Bear with cub crossing the road (<i>Ursus americanus</i>), Yellowstone National Park, Wyoming, USA	age fotostock/SuperStock	
C261-15P-	Damselfly with Green Bottle Fly prey, North America.	Bill Beatty/Visuals Unlimited	
C261-16P-	Lesson Opener - Elephant. Mana Pools NP. Zimbabwe	age fotostock/SuperStock	
C261-17P-	Coachella Valley Fringe-toed Lizard (<i>Uma inornata</i>)	Photoshot	
C261-50P-	Green Science - Field of blooming purple Loosestrife (<i>Lythrum salicaria</i>) spreading into a forest 1384 x 1846	Reimar Gaertner/Alamy	
C261-51P-	Loosestrife leaf beetle on host plant. Insecta. Coleoptera. Chrysomelidae. <i>Galerucella Calmariensis</i> . Michigan, USA.	age fotostock/SuperStock	

MSS12_AQUARIUM- MSS12P	MSS12_AQUARIUM	The Mcgraw-Hill Companies	
MSS12_COLLECTION_ ECO-	Composite of PM_Animal_Earthworm, MSS12_Soil_Potting, and PM_Plants_Two_Potted	The Mcgraw-Hill Companies	