

<p>Name the scientist who studied light and systematically showed how to direct images using lenses.</p> <p>Isaac Newton</p>	<p>Name the scientist who unified electric and magnetic forces to mathematically derive how waves of light travel through space and time.</p> <p>James Clerk Maxwell</p>	<p>Name the scientist who claimed that the more precisely the position of a particle is known, the less precisely its speed is known.</p> <p>Werner Heisenberg</p>	<p>Name the scientist who wondered if red giant stars contained carbon-rich molecules, which led him to contact Richard Smalley and inspired the discovery of Buckeyballs.</p> <p>Harold Kroto</p>	<p>Name one of the three inventors who won the 1956 Nobel Prize in Physics for their invention of the transistor.</p> <p>William B. Shockley, John Bardeen, and Walter Brattain</p>	<p>Name the scientists who are credited with discovering clusters of carbon they called Buckminsterfullerene.</p> <p>Richard Smalley and Robert Curl</p>
<p>Name the architect who built famous geodesic domes for whom Buckeyballs are named.</p> <p>Buckminster Fuller</p>	<p>Name the three scientists who won the 1996 Nobel Prize in Chemistry for their discovery of Carbon-60.</p> <p>Robert Curl, Harold Kroto and Richard Smalley</p>	<p>Name the scientist who discovered Carbon Nanotubes in 1991 at the NEC laboratory in Tsukuba, Japan.</p> <p>Sumio Iijima</p>	<p>Name the groups who first synthesized single-walled carbon nanotubes.</p> <p>Either Donald Bethune's group at IBM Almaden Research Center OR Sumio Iijima's group at NEC laboratory.</p>	<p>Name the inventor who made the vacuum tube triode that functions as an amplifier of radio signals – thus enabling the invention of AM radio.</p> <p>Lee de Forest</p>	<p>Name the scientists who first showed (in 1994) that some carbon nanotubes are metallic and others are semiconductors.</p> <p>Charles Oik and Joseph Heremans at General Motors Research Laboratory</p>
<p>Name the scientist who in 2004 built tetrapod shaped quantum dots at the University of California in Berkeley.</p> <p>Paul Alivisatos</p>	<p>Name the two scientists who won the 1987 Nobel Prize in Chemistry for their contributions to supramolecular chemistry.</p> <p>Jean-Marie Lehn and Charles Pederson</p>	<p>Name the inventors who won the half the 1986 Nobel Prize in Physics for their design of the scanning tunneling microscope.</p> <p>Gerd Binnig and Heinrich Rohrer of IBM Research in Zurich</p>	<p>Name the inventor who won half the 1986 Nobel Prize in Physics for his fundamental work in electron optics and design of the first electron microscope.</p> <p>Ernst Ruska of the Max Planck Institute in Berlin</p>	<p>Name the 1958 inventors of the integrated circuit which is an electronic device with many transistors.</p> <p>Jack Kilby at Texas Instruments and Robert Noyce at Fairchild Semiconductor Corp.</p>	<p>Name the scientist who mathematically explained spectral properties of heated objects by regarding light as a stream of particles called photons.</p> <p>Max Planck</p>
<p>Name the scientist who, in 2004, worked with his team at Georgia Institute of Technology used quantum nanodots to light up only cells that betray cancer.</p> <p>Shuming Nie</p>	<p>Name the scientist whose famous laws of motion are the basis of classical physics.</p> <p>Isaac Newton</p>	<p>Name the scientist who gave a talk "There's Plenty of Room at the Bottom" to the 1959 annual meeting of the American Physical Society, that matter could be manipulated atom by atom.</p> <p>Richard Feynman</p>	<p>Name the scientist who proved from the laws of physics and known properties of matter that the entire 24 volumes of Encyclopedia Britannica could fit on the head of a pin.</p> <p>Richard Feynman</p>	<p>Name the scientist who, in 1905, proposed a quantum theory of light to explain the flow of electrons from illuminated metal surfaces.</p> <p>Albert Einstein</p>	<p>Name the inventors who in 1999 developed a silicon microchip that when implanted could deliver a variety of drugs for controlled release on demand.</p> <p>Robert Langer and Michael Cima</p>

<p>In what year is the first molecular electronic device patented by Aviram and Seiden -- was it 1964, 1974, 1984, 1994, or 2004?</p> <p>1974</p>	<p>What year was the Scanning tunneling microscope (STM) invented – was it 1961, 1971, 1981, 1991, or 2001?</p> <p>1981</p>	<p>What year did Richard Smalley discover buckeyballs (carbon 60) – was it 1965, 1975, 1985, or 1995?</p> <p>1985</p>	<p>An integrated circuit is an electronic device with many transistors. What year was it invented – was it 1958, 1968, 1978, or 1988?</p> <p>1968</p>	<p>What year did Sumio Iijima discover the carbon nanotube – was it 1971, 1981, 1991, or 2001?</p> <p>1991</p>	<p>What year did William Shockley invent the first transistor – was it 1927, 1937, 1947, 1957, or 1967?</p> <p>1947</p>
<p>Magnetic Resonance Guided Focused Ultrasound Therapy combines MRI with ultrasound waves to kill cancer cells with heat rather than removing the cancer via traditional surgery. What year was it first used – was it 1970, 1980, 1990, or 2000?</p> <p>2000</p>	<p>Who at Rice University invented nanoshells - multilayered silica core covered by a thin gold shell that can be tailored to respond to specific colors of light?</p> <p>Naomi Halas</p>	<p>Which university begins studying photothermal cancer treatment - using nanoshells that are tuned to respond to near-infrared light to heat and kill cancer cells?</p> <p>Rice University</p>	<p>Name the U. S. President whose administration started the National Nanotechnology Initiative.</p> <p>President Clinton</p>	<p>Which year did researchers find that carbon nanotubes were excellent sources of field-emitted electrons – was it 1975, 1985, 1995, or 2005?</p> <p>1995</p>	<p>Who, in 1981, published the first paper about molecular engineering to build with atomic precision?</p> <p>K. Eric Drexler</p>
<p>What year did Eric Drexler publish the first paper about molecular engineering with atomic precision – was it 1971, 1981, 1991, or 2001?</p> <p>1981</p>	<p>In what year did Drexler originate molecular nanotechnology concepts at MIT – was it 1957, 1977, or 1997?</p> <p>1977</p>	<p>What year was the first protein engineered – was it 1967, 1977, 1987, or 1997?</p> <p>1987</p>	<p>In what year did IBM use a scanning tunneling microscope to spell the letters of its IBM Logo with xenon atoms – was it 1969, 1979, 1989, or 1999?</p> <p>1989</p>	<p>Foresight published the first guidelines for responsible nanotechnology development in which year – was it 1979, 1989, or 1999?</p> <p>1999</p>	<p>In which year did the Committee on Science, U.S. House of Representatives examine the societal implications of nanotechnology and consider H.R. 766, The Nanotechnology Research and Development Act of 2003?</p> <p>2003</p>
<p>Who wrote the science fiction thriller “Prey” about self-replicating micromachines destroy Earth?</p> <p>Michael Crichton</p>	<p>Eric Drexler taught the first university nanotech course, "Nanotechnology and Exploratory Engineering" in 1988 at which school – was it Stanford, Rice or Wisconsin?</p> <p>Stanford</p>	<p>In which year was the atomic force microscope invented – was it 1976, 1986, 1996, or 2006?</p> <p>1986</p>	<p>In what year Taniguchi did coin term "nanotechnology" in a paper on ion-sputter machining – was it 1974, 1984, 1994, or 2004?</p> <p>1974</p>	<p>In which year did <i>Applied Physics Letters</i> publish about the world's smallest refrigerator, a cube about 250 micrometers on each side – was it 1985, 1995, or 2005?</p> <p>2005</p>	<p>In which year did researchers publish about how to make 3-D images of nanocrystal interiors created by shining X-rays through them – was it 1986, 1996, 2006?</p> <p>2006</p>