EXTRAS FOR THE CD!

Requirement #1 - Things Engineers Do

AEROSPACE
Aerospace engineers design, analyze, model, simulate, and test aircraft, spacecraft, satellites, missiles, and rockets.

CERAMIC AND MATERIALS
Make useful products in many forms from common as well as exotic materials.

ENVIRONMENTAL
Environmental Engineering is the study of ways to protect the environment.

MECHANICAL
Mechanical engineers are often referred to as the general practitioners of the engineering profession, since they work in nearly every area of technology, from aerospace and automotive to computers and biotechnology.

AGRICULTURAL AND BIOLOGICAL
Agricultural engineers apply knowledge of engineering technology and science to agriculture and the efficient use of biological resources.

CHEMICAL
Chemical Engineers discover and manufacture better plastics, paints, fuels, fibers, medicines, fertilizers, semiconductors, paper, and all other kinds of chemicals.

GEOLOGICAL AND GEOPHYSICAL
Geological and Geophysical Engineers draw on the science of geology to study the earth, using engineering principles to seek and develop deposits of natural resources and design foundations for large buildings, bridges, and other structures.

MINING
Mining engineers study all phases of extracting mineral deposits from the earth.

AUDIO
Audio Engineers are involved in the creation of audio that blends both art and science. Like the sounds in a video game, or in a move, TV show or at a concert.

CIVIL
A civil engineer oversees the construction of the buildings and infrastructure that make up our world: highways, skyscrapers, railways, bridges, and water reservoirs, as well as some of the most spectacular and high-profile of all engineering feats.

INDUSTRIAL
Industrial engineers determine the most effective ways to use people, machines, materials, information, and energy to make a product or to provide a service.

NUCLEAR
Nuclear engineers harness the power of the atom to benefit humankind. They search for efficient ways to capture and put to beneficial use those tiny natural bursts of energy resulting from sub-atomic particles that break apart molecules.

BIOENGINEERING AND BIOCHEMICAL
Bioengineers study living systems, study the safety of food supplies, keep desirable organisms alive in fermentation processes, and design biologically based sensors.

COMPUTER
Computer Engineering is the design, construction, implementation, and maintenance of computers and computer controlled equipment.

MANUFACTURING
Manufacturing engineers direct and coordinate the processes for making things - from the beginning to the end.

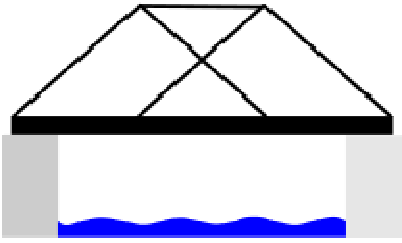
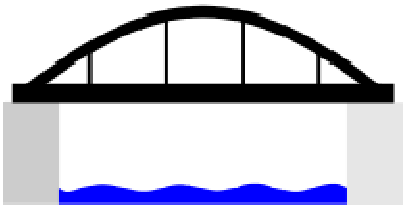
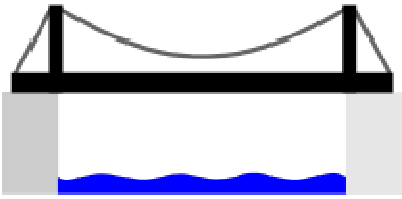
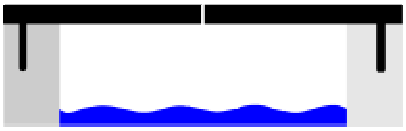
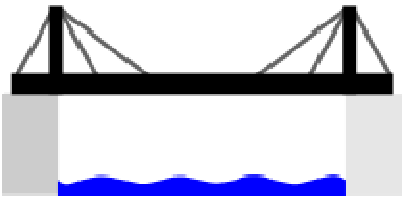
PETROLEUM
Petroleum engineers study the earth to find oil and gas reservoirs. They design oil wells, storage tanks, and transportation systems. They supervise the construction and operation of oil and gas fields.

BIOMEDICAL
Biomedical Engineers study biology and medicine to develop technologies related to health care.

ELECTRICAL
Electrical engineers develop components for some of the most fun things in our lives (MP3 players, digital cameras, or roller coasters) as well as the most essential (medical tests or communications systems). This largest field of engineering encompasses the macro (huge power grids that light up cities, for example) as well as the micro (including a device smaller than a millimeter that tells a car's airbags when to inflate). As an electrical engineer, you might work on robotics, computer networks, wireless communications, or medical imaging—areas that are at the very forefront of technological innovation.

MARINE AND OCEAN
These engineering fields are closely related, and deal with the design of ocean vehicles, marine propulsion systems, and marine structures such as harbors, docks, and offshore drilling platforms.

Requirement #6 - Draw 3 Kinds of Bridges

Beam Bridge		Arch Bridge	
Truss Bridge		Tied Arch Bridge	
Suspension Bridge		Cantilever Bridge	
Cable-stayed Bridge