

# techne

## [TEK nay] art, skill

technology - (logos - word, study) - study of how to do things

technical - pertaining to the art or skill involved in all kinds of work, science, sport, business, profession, mechanical arts

technique - expert skill in accomplishing something

technician - one who is skilled in details of an art or subject

architect - (archi - chief, master) - a master builder

architecture - art or science of building

### Teaching Notes:

We use the words technical and high tech almost as though we had invented them in the last few years. We associate any word which has TECH in it with the latest wonders of the modern world. Sleek cars, fast airplanes, streamlined trains, computers, telecommunications – all are images which pop into mind when technology is mentioned. It has been that way for thousands of years, though.

The ancient Indo-European word TEKH meant weaving or building. The ancients wove and built with simple materials which came to hand in those days (around 6000 B.C., according to Robert Claiborne). We think the Indo-European tribes lived in the valley of the Danube River and were the first farmers in their part of the world. Agriculture was very different from hunting, or gathering grains and berries wherever they happened to be found. The old Indo-Europeans developed the new technologies of plowing, planting, and harvesting. They built homes and made clothing in new ways.

Mankind has kept on devising new technology ever since man's time began. When you think about it, all through history, whenever someone has invented something new, it has always been the latest, modern, state-of-the-art technology. Even 100 years ago, they said, "Everything's up to date in Kansas City!"

# ars artis

## [AHRs, AHR tis] art, skill

art - display or application of skill

artist - one who acts or creates with skill

artistic - pertaining to skillful creation

artless - without skill, natural, simple and sincere

artful - full of, or characterized by skill

artificial - (facio, factum - make) - made by man; not occurring naturally

artillery - (artiller [F.] - equip) - equipment for war

inert - (in - not) - not skilled, inactive, sluggish

inertia - state of inactivity; motion which continues unless altered by an external force

### Teaching Notes:

Even though both techne and ars, artis mean “art or skill”, we need derivatives from each of them for our English vocabulary because we use them somewhat differently. We attribute more personal creativity and inner feeling to someone whom we call an artist. We tend to think more of expert manual or mechanical skill when we talk of a technician. In the United States today, we associate technology with industry or practical goods, and think more of music, painting, drama, and literature as the arts. Is an artisan more a technician than he or she is an artist? Is an architect more an artist than she or he is a technician? Puzzling questions to think and talk about!

Artillery has an interesting background. The French word, artiller, meaning “equip” is combined with ars to form a word which means heavy war equipment which requires a skilled operator. We might jokingly refer to a club as a caveman’s “artillery”, but it really means cannon, missiles, anti-aircraft guns, machine guns, etc.

Metro-Goldwyn-Mayer movies, for many years, began with a picture of a roaring lion framed in a circle bearing the inscription, “Ars gratia artis” (art for the sake of art).

# bios

## [BI oss] life

biology - (logos - word, study) - study of life

biography - (graph - write, draw) - written life story

autobiography - (autos - self) - written life story of one's self

microbe - (micro - small) - tiny form of life

amphibian - (amphi - both) - creature who can live both on land and in water

bionic - life-like

biotic - pertaining to life

antibiotic - (anti - against) - against living forms which invade the body

### Teaching Notes:

This Greek word continues to contribute new words to the English language every year. Its meaning, "life", is so universally recognized, that BIOS is readily combined with other root words to coin new English scientific terms which can be widely understood. Biodegradable is a word which is much in the news these days when plastics and detergents, considered harmful to the natural environment, are being discussed. It simply describes a substance which can be broken down by the action of microbes, or tiny forms of life. The degradable portion of the word (de - down + gradus - step) means that a complex, manufactured substance can be "stepped" or broken down into its simple, natural components in the way that fallen trees rot in the forest. On TV, the famous "Bionic Man" had life-like artificial body parts which enabled him to race with trains and leap over trees.

A search of the unabridged dictionary will reveal many infrequently used scientific terms all having some connection to the concept of life. Biolysis (lysis - loosing, parting, breaking up) has a meaning similar to biodegradable since it refers to the destruction of organic material by microorganisms. We mustn't leave out an early term, biophotophone, just for the fun of figuring out what it meant - now that we know photo and phone. It's what they called an early machine for making talking motion pictures. It was a bit unwieldy and was soon discarded. They don't all work!

# VIVO victum

## [WEE wō, WIK toom] live

vivid - lively, animated, spirited

revive - (re - back, again) - come back to life

survive - (sur [F. from L.] super - over) - to live over or beyond a threat of death

vivacity - liveliness, vigor

convivial - (con - with, together) - relating to feasting together

viand - food to support life

victual - (pronounced "vit'l") - food to support life

victim - religious sacrifice of live animal or person

### Teaching Notes:

Vivo, victum (pronounced wee-woh, wictim) may not look as though it is related to the Greek word for "life", bios, but it is! They both came from the old Indo-European word gwei meaning "life" or "alive". It's interesting that two rather old-fashioned words for "food", viand and victual ("vit'l") actually came from our Latin word vivo, victum. For the ancient people, life depended entirely on whether they were able to find something to eat or not, so they thought of the meat from the tribe's hunting trip, or the grains and berries they were able to gather, as "life".

We now speak of anyone who has suffered a misfortune or an accident as a "victim". However, the word originally referred to the live animal or human being who was sacrificed to appease a god. In the story of the Trojan War, Agamemnon had vowed to sail to Troy to help his younger brother, Menelaus, bring back his beautiful wife, Helen, who had been stolen by the Trojan prince, Paris. However, having gathered thousands of ships and allies on the beach at Aulis, Agamemnon found that the goddess, Artemis, angry at the killing of a sacred deer, had becalmed the winds so that the Greek ships could not sail to Troy. Agamemnon felt he had to get them moving by making a sacrifice to Artemis. Poor Iphigenia was the victim! Some stories say the goddess rescued her at the last minute and made her a priestess.

# mikros

## [Mi KROSS] small

- microphone - (phone - sound) - device for transmitting a small sound over distance
- microbe - (bios - life) - tiny form of life
- microcosm - (cosmos - world) - a tiny world
- microfilm - (filmen [Anglo-Saxon] - thin skin) - tiny film for storing books, records, etc.
- micrometer - (metron - measure) - instrument for measuring small things
- micron - unit of length 1/1000 of 1 millimeter
- microscope - (skopeo - look at) - instrument for looking at tiny things
- microwave - (wafian [Anglo-Saxon] - wave) - tiny electromagnetic wave between 1 and 100 centimeters long

### Teaching Notes:

When Greek words were taken into Latin, as mikros was, the Greek letter kappa "K" was changed to a "c". The Romans did take the letter "K" from Greek, but used it very little since "c" was always pronounced like a "k" and never like an "s". In English, of course, "c" before "e", "i", or "y" says /s/.

Microcosm - We speak of tiny worlds such as those found in drops of water or decaying logs, in which thousands of tiny creatures live their lives unaware of the larger world about them. A small human community in which all the functions of the great world are carried on could be called a microcosm as well. Microfilm and microwave are both "hybrid" words since they combine Greek and Anglo-Saxon roots. Usually Greek roots combine with Greek to make new vocabulary, but it is becoming more common to put roots from different languages together.

Nothing makes the meaning of mikros mean more to children than the opportunity to look at something tiny (an insect, a grain of salt or sugar, a stamp) through a microscope. Is there a microscope that your children could use?