Lesson 21

Greek Bases and Affixes

During the Renaissance period (1500-1650) there was a great interest in England in Greek and Latin. One important impact and result of this interest is that English acquired many new words, especially in the fields of science, technology, and health. Even today we continue to borrow from Greek to name new medicines or procedures, such as laparoscope or laparoscopy and astronaut, from astros meaning star/outer space and nautes meaning sailor.

Many bases and affixes refer to the physical aspect of our world.

- phys- – nature
- astro- – star or outer space
- atmos- – vapor/gas
- geo- – earth or earthlike
- bio- – life
- zoo- – animal or animal kingdom
- phon- – sound
- spher- – ball
- cycl- – circle

Some of these words can combine with each other.

- atmosphere
- biosphere

hemi- means half, and so hemisphere would be half a ball.

These bases refer to human life, parts of the body, or its condition:

- dem- – people
- anthropo- – human beings
- psych- – mind
- path- – disease
- gen- – origins, family, source
- geronto/geront- – old age
- ophthalmalmo/ophthalm- – eye, eyeball

The suffix -ology means study of (something), and the suffix -ist attached to -olog(y) means one who studies (something): geologist, psychologist, etc.
Exercises

A1. Complete the definition of these combinations:

Hemisphere – __________________ of the earth
Biosphere – the part of the earth that can support ________________
Atmosphere – the mass of _______________ around the earth

A2. Combine a base from page 75 with -ology to produce a word that means the study of (something).

the earth: ____________________________
the stars: ____________________________
living things: _________________________
aging/old age: _________________________
diseases: _____________________________
the mind: ____________________________
sounds: ______________________________
human beings: _______________________  

A3. Can you make some more -ology words?

_________________________  __________________________  __________________________
_________________________  __________________________  __________________________

A4. A person who studies zoology is a zoologist. What do these people do?

biologist ____________________________
geologist ____________________________
astrologist __________________________
zooologist __________________________
psychologist _________________________
ophthalmologist _____________________
gerontologist ________________________
pathologist __________________________

A5. These words can take an -ic or an -ic + -al adjective ending. Add an ending. What do they mean?

spher____  __________________________
zoolog____  __________________________
astrolog____  __________________________
bilog____  __________________________
psycholog____  __________________________
atmospher____  __________________________
phonolog____  __________________________
patholog____  __________________________
Many bases and words in the medical field come from Greek.

- **pharma-** – drug
- **-scope** – see
- **arthr(o)-** – joint
- **dermat-** – skin
- **gastr(o)-** – stomach
- **hepat(o)-** – liver
- **laryng(o)-** – throat, where the voice box is

B. The suffix **-itis** means inflammation or disease of. Complete the sentences below with an appropriate combination of a base + **-itis**. Use the bases above.

1. People who played a lot of sports often suffer from ____________ or aching and swelling in their joints when they get older.
2. ____________ is an irritation or inflammation of the skin.
3. Fred can’t talk because he has ____________.
4. My sister had ____________, so she avoids alcohol and heavy foods that affect the liver.
5. Bob suffers from ____________ and therefore doesn’t eat spicy or hot foods, which irritate his stomach.

In addition to being used in the fields of science and health, Greek bases also form the basis for many words that pertain to psychological and social aspects of humanity.

- **dem-** – people
- **-phobia** – fear
- **phil-** – love
- **-soph-** – wisdom, knowledge
- **-gnos-** – knowing
- **-logo** – word, speech
- **-archy/ -cracy** – govern/rule

C. Look these words up and look for their Greek bases.

- **homophobia**
- **democracy**
- **philosophy**
- **endemic**
- **photography**
- **agnostic**
- **theology**
- **anarchy**
D. Read the following passage for general comprehension. Then go through it again, highlighting all the words that have Greek bases.

**World Health Officials Warn: Pandemic Inevitable**

**GENERA (PLN)** At a press conference this morning in Genera, world health officials from both hemispheres warned that it is just a matter of time before a pandemic of disastrous and catastrophic proportions strikes. The director of World Health Watch, Ashok Lalwani, gave examples of pandemics in history, explained the conditions required for a pandemic, listed possible future scenarios, and then outlined steps to minimize a pandemic.

Well-known disastrous pandemics from the past include typhoid fever, the bubonic plague, smallpox, and cholera. The domestication of animals has resulted in pandemics called zoonoses – diseases that can be transmitted from animals to humans. Examples include rabies, influenza, tuberculosis, and Asian Bird Flu, possibly the next pandemic.

To be declared a pandemic, a disease must meet three conditions. It must:

- not be endemic to the population or the geographical area
- infect humans with a serious illness
- spread quickly and sustainably from human to human

To build to pandemic level, diseases progress through a cycle starting with (1) Interpandemic (no diagnosed disease in humans, but a danger of animal-to-human transmission), (2) a pandemic alert (an epidemic infection in humans but still local, contained outbreaks), and finally (3) the pandemic (very widespread infection and sustainability of the disease, even on a worldwide basis).

Future Pandemics: Pathologists, epidemiologists, and biologists are keeping a watchful eye on Marburg virus and Ebola virus, as potential candidates for pandemics. Though lethal, for now they are not able to spread quickly because transmission of the diseases requires close physical contact from one human to another. The concern is that the diseases could develop genetic mutations that will spread the disease more rapidly.

Lalwani emphasized the importance of developing an International Pandemic Plan. The plan must address communication – informing the public to avoid panic; implementation of non-pharmaceutical measures such as travel advisories and limited social interaction; containment of the disease to limit the spread; identification of the source to prevent further infection; development of antiviral vaccines and other measures; and educating the public about good health practices.