**ESL 116: Academic Prefixes and Suffixes**

Many terms used in academic disciplines are built up from roots, prefixes, and suffixes, often of Latin or Greek origin. Below is a selected list of some prefixes and suffixes that are commonly used.

|  |  |  |
| --- | --- | --- |
| **Prefix** | **Meaning** | **Example** |
| astro- | star/space | astrophysics |
| bio- | life | biosphere |
| cosmo- | cosmos (the universe) | cosmology |
| eco- | related to ecology | ecosytem |
| electro- | electric | electromagnetic |
| geo- | earth | geopolitical |
| hydro- | water | hydrology |
| macro- | large | macromolecules |
| meta- | change/beyond | metamorphosis/metaphysics |
| micro- | small | microelectronics |
| neuro- | brain | neurology |
| paleo- | old | paleoclimatology |
| patho- | disease | pathology |
| photo- | light | photography |
| phyto- | plant | phytoplankton |
| psycho- | mind (not brain) | psychology |
| socio- | society | sociology |
| thermo- | temperature/heat | thermometer |
|  |  |  |
|  |  |  |
| **Suffix** | **Meaning** | **Example** |
| -graph | write/draw | geography |
| -logy | field of study | physiology |
| -meter/metric | measure | thermometer |
| -scope | to see | telescope |

**Exercise 1:** Analyze the meaning of the underlined word. Write the affix(es) and root in the spaces provided. Circle, or highlight the part of speech (n,v,adj,adv) and write the meaning of the word. If possible, do not use the same root in your definition.

EXAMPLE: The science of pathology was greatly enhanced when the microscope came into general use.

affix(es): *patho*- root: -*logy*

meaning (n, v, adj, adv): *the study of diseases*

1. We need a biostatistician to help us analyze the data on AIDS.

affix(es): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ root: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

meaning (n, v, adj, adv): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. Some psychoneuroimmunologists are studying the relationship between attitudes and cancer.

affix(es) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ root \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

meaning (n, v, adj, adv): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Using hot springs to heat buildings is one example of geothermal energy.

affix(es): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ root: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

meaning (n, v, adj, adv): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. Electrical activity in the brain is measured with an electroencephalograph.

affix(es): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ root: \_\_\_\_\_\_\_\_\_\_\_\_

meaning (n, v, adj, adv): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5. Based on their studies of plant life, some paleobotanists have suggested that global cooling caused by volcanic activity led to the disappearance of the dinosaurs.

affix(es): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ root :\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

meaning (n, v, adj, adv): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

6. Most satellites use photoelectric cells to provide the energy they need.

affix(es): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ root: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

meaning (n, v, adj, adv): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

7. Electron microscopes give the greatest magnification.

affix(es): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ root: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

meaning (n, v, adj, adv): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

8. Cosmologists and astrophysicists are trying to develop better theories about the origin of the universe.

affix(es): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ root: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

meaning (n, v, adj, adv): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

affix(es): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ root: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

meaning (n, v, adj, adv): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

9. Herbicides are extremely phytotoxic substances.

affix(es): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ root: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

meaning (n, v, adj, adv): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

10. I once read a book entitled **Programming and Metaprogramming in the Human Biocomputer.**

affix(es): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ root: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

meaning (n, v, adj, adv): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

affix(es): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ root: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

meaning (n, v, adj, adv): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Exercise 2**: Fill in the blanks with the appropriate word from the list below.

|  |  |  |
| --- | --- | --- |
| thermodynamics | electromagnetism | biotechnology |
| neurotransmitters | hydroelectric | magnetosphere |
| macroeconomics | microeconomics | pathogenesis |
| metamathematicians | econometricians | photosynthesis |
| holography | ecosphere | astronauts |
| sociobiology |  |  |

1. The conversion of energy from one form to another, especially with regards to

temperature, is studied in the field of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

2. Many scientists concerned about the environment are working to better understand

complex interactions in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ apply statistical and mathematical techniques to the

problem of measuring and explaining the economy.

4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ has examined the relationship between genetics and

social organization in species like termites and bees.

5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is the science of producing three-dimensional images

through the use of lasers.

6. Nerves communicate with each other through a set of chemicals called

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

7. Some countries depend largely on \_\_\_\_\_\_\_\_\_\_\_\_\_\_dams for their energy.

8. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a word used to describe the way diseases develop.

9. The process by which plants convert light energy into chemical energy is known as

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

10. The study of how small businesses and families function in the economy is known as

\_\_\_\_\_\_\_\_\_\_\_\_, while the study of national and international economies are \_\_\_\_\_\_\_\_\_.