Learning Guide: Growth and Development

Study Guidance: Students should understand basic cell division and reproduction, and the hereditary and environmental factors (e.g., tobacco smoke, lead exposure) that may affect the fetus, infant and child. Students should have a concept of growth and development as a continuous process at the macro and cellular level from conception to death. Students should be familiar with the basic concepts of development and growth in infancy, childhood, adolescence and adulthood. Students should be vaguely aware of growth and development as being influenced by many factors including those that are ecological, evolutionary, and environmental.

Be able to discuss the following:

- Mitosis versus Meiosis
- Growth and development factors in the prenatal period of life
- Assisted reproduction (egg and sperm donation, in vitro fertilization)
- Birth defects, varying risk factors (e.g., genetics, environmental) and prevention
- Development as a biological process
- Influence of environmental factors, chemical and physical factors on growth and development
- Biological and molecular components of life long development

Be able to define, identify, and differentiate the terms found in the lectures and the glossary with respect to growth and development. Here are just some examples.

- Cystic Fibrosis
- Sickle Cell Anemia
- Tay Sachs
- Hemophilia
- In-Vitro Fertilization
- Fetus
- Conception
- Prenatal
- Genetic Disorder
- Prematurity
- Infancy
- Childhood
- Genetic Traits
- Somatic Cell
- Translation
- Transcription
- Codon
- Fertilization
- Spina Bifida
- Rubella
- Syphilis
- Diabetes Mellitus
- New Ballard Scale
- Apgar Scores
- Failure to Thrive

**Required Readings: None**

**Additional Readings and Information Used for Lectures and Glossary**

1) Growth and Development Through the Lifespan: by Kathleen M Thies
   Chapter 11, 12, 13, 17, 25, 26, 44 (Chapters are only 2-4 pages long)

2) [http://www.collegeboard.com/student/testing/clep/ex_hgd.html](http://www.collegeboard.com/student/testing/clep/ex_hgd.html)

4) [http://www.cdh.org/HealthInformation.aspx?pageId=P02217](http://www.cdh.org/HealthInformation.aspx?pageId=P02217): Central Dupag Hospital

5) [http://faculty.tcc.fl.edu/hss/mcguffr/Glossary%20of%20Key%20Terms%20in%20Human%20Development.doc](http://faculty.tcc.fl.edu/hss/mcguffr/Glossary%20of%20Key%20Terms%20in%20Human%20Development.doc): Unknown Developer

7) [http://www.ucmp.berkeley.edu/glossary/glossary_4.html](http://www.ucmp.berkeley.edu/glossary/glossary_4.html): UCMP glossary