

# Unit A, Chapter 3 Science Study Guide

**Directions –Your test will be multiple choice, short answer, and fill in the blank. You will need to use your notes as well as you text book to answer these questions. After each question is answered, I would recommend making flash cards to assist you in studying. Good luck! ☺**

**Fill in the Blank Be able to use the following words to complete sentences.**

mitosis	asexual reproduction	life cycle	sexual reproduction
chromosomes	direct development	meiosis	metamorphosis

inherited trait	genes	dominant trait	recessive trait
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**Be able to label pictures in the correct order to show the development of a butterfly.  
Be able to label pictures in the correct order to show the order of mitosis.**

**Multiple Choice Choose the letter of the best choice.**

1. Cells going through mitosis produce \_\_\_\_\_.
2. In sexual reproduction, two cells combine to form a one-cell \_\_\_\_\_.
3. What does rapid mitosis allow a lizard to do if its tail is cut off? \_\_\_\_\_
4. How does the nucleus of a cell prepare for mitosis?
  
5. Through the process of metamorphosis, an insect...
  
6. How many parents are required in sexual reproduction? \_\_\_\_\_
7. What are the three stages of incomplete metamorphosis?
  
8. Genes found on chromosomes contain the DNA codes for \_\_\_\_\_.
9. An example of incomplete metamorphosis is the life cycle of the \_\_\_\_\_.
  - a. In direct development, offspring \_\_\_\_\_.
10. One human trait that is NOT inherited is \_\_\_\_\_.

**Short Answer**      **These must be answered in complete sentences.**

- 1. Why is it NOT a good idea to try to get rid of ocean sponges by chopping them up?**
- 2. Why do the cells of an adult continue to divide after the adult has stopped growing?**
- 3. Compare mitosis with meiosis.**
- 4. HYPOTHESIZE what might happen to an insect larva placed in a glass jar with only grass to eat. What would happen if the insect was in the pupa stage?**
- 5. If a body cell has 22 chromosomes, what would be the chromosome count for the reproductive cells? USE NUMBERS to explain your answer.**