

Name: _____

Date: _____

Science 9 Reproduction and Human Development Review

Topics

1. Cell theory and the cell cycle (interphase, mitosis, cytokinesis)

Be able to:

- Explain why the cell cycle is different for different types of cells; explain why cells reproduce
- List the phases of the cell cycle and briefly explain what is happening in each phase
- Explain how a cell with cancer is different from a healthy cell, and some ways to stop cancer from spreading (surgery, radiation therapy, chemotherapy)

2. Asexual Reproduction

Be able to:

- Identify advantages and disadvantages of asexual reproduction
- Explain different types of asexual reproduction, and give an example of an organism that uses each type to reproduce

3. Sexual Reproduction

Be able to:

- Identify advantages and disadvantages of sexual reproduction
- Explain the difference between external and internal fertilization, and internal and external development, including advantages and disadvantages of each
- Explain what a hermaphrodite is
- Explain how seed can be transported to help a plant reproduce to a wider environment
- Define "gymnosperm", "angiosperm", "cross-pollination" and "self-pollination"

4. Genetics

Be able to:

- Give an example of a characteristic and a trait, and identify if it is continuous or discrete
- Define "dominant trait", "recessive trait", "heterozygous", "homozygous", "genotype" and "phenotype"
- Use a Punnett square to determine the probability of a specific genotype for an offspring given the genotypes of the parents

5. Meiosis

Be able to:

- Explain how meiosis is different from mitosis
- Explain how meiosis is different for sperm production and egg production

6. Human Reproductive System

Be able to:

- Explain how sperm is produced and released from the body, including proper names of the organs in the reproductive system
- Identify the path of the egg out of the body

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- Identify the four phases of the menstrual cycle and briefly explain what occurs in each, including the role of hormones
7. Human Development
- Be able to:
- Answer fill in the blank questions about stages in human development from fertilization to birth, including definitions of important terms
 - Explain how chemical, physical, lifestyle and permanent contraceptives are used to prevent pregnancy, including how effective they are
 - Explain how artificial reproductive technology can help someone with infertility have a baby

Test Outline

- 50 multiple choice questions (50 marks)
- Four short answer questions (20 marks ish)

How to Study

- Quiz a friend
- Go through your notes and assignments and write down all of the important parts onto a "cheat sheet" (even though you DO NOT get a cheat sheet for this test)
- Watch YouTube videos on the unit topics (check the website for some good ones)
- Do questions from your textbook

Do not study by "reading your notes". This is a terrible way to get information into your brain, because it is passive. You will remember it much better if you are explaining it out loud or writing it down, which is an active way to study.