Science 9 Name: Biology Study Guide Date: Block:

Create a study guide that includes the major vocabulary and concepts you learn in this unit. Include **definitions**, **examples**, and/or **relevant diagrams**. Your study guide can be a rewriting of your notes, a series of questions/answers, a brochure, a mind map showing the connections between concepts, or any other way you can think of. You can create your study guide on a regular sized piece of paper, a large piece of poster paper, or cue cards

Biology I: Cell Theory, Organelles, DNA and Chromosomes

| Vocabulary | Concepts |
|-----------------------|---|
| Prokaryotic cell | The Cell Theory (3 main ideas) |
| Eukaryotic cell | Prokaryotic vs Eukaryotic cells |
| Nucleus | Cell organelles |
| Mitochondria | D eoxyribo n ucleic A cid (structure and |
| Cell membrane | function) |
| Cytoplasm | |
| Cell wall | |
| Chloroplast | |
| Ribosome | |
| Endoplasmic Reticulum | |
| Golgi body | |
| Vacuole | |
| Vesicle | |
| Lysosome | |
| Nucleotide | |
| Chromosome | |

Biology II: Asexual Reproduction, Binary fission

| Vocabulary | Concepts |
|-----------------------------|---------------------------------------|
| Asexual reproduction | Advantages of asexual reproduction |
| Offspring | Disadvantages of asexual reproduction |
| Genetic diversity/variation | The process of binary fission |
| Bacteria | |
| Binary fission | |
| Parent cell | |
| Daughter cell | |

Biology III: Types of Asexual Reproduction, Mitosis

| Vocabulary | Concepts |
|---|-------------------------------|
| Clones | Budding |
| Cell cycle | Spores |
| Interphase | Fragmentation |
| Chromosome | Vegetative propagation |
| Centromere | Grafting |
| Mitosis: Prophase, Metaphase, Anaphase, | Why do cells undergo mitosis? |
| Telophase | Stages of Mitosis |
| Chromatid | |
| Spindle fibres | |
| Sister chromatids | |
| Cytokinesis | |

Biology IV: Sexual Reproduction, Gametes and Fertilization

| Vocabulary | Concepts |
|-----------------------------|--------------------------------------|
| Sexual reproduction | Advantages of sexual reproduction |
| Genetic diversity/variation | Disadvantages of sexual reproduction |
| Gametes | Number of chromosomes in gametes vs |
| Haploid cells | body cells |
| Diploid cells | |
| Fertilization | |
| Zygote | |

Biology V: Meiosis, Stages of Meiosis

| Vocabulary | Concepts |
|--|-------------------------------|
| Meiosis | Why do cells undergo meiosis? |
| Homologous chromosomes | Stages of Meiosis |
| Interphase | |
| Meiosis I: Prophase I, Metaphase I, Anaphase I, Telophase I, Cytokinesis | |
| Crossing over | |
| Meiosis II: Prophase II, Metaphase II, Anaphase II, Telophase II, Cytokinesis | |

Biology VI: Human Embryotic Development

| Vocabulary | Concepts |
|------------------------|-------------------------------|
| Prenatal | How do human embryos develop? |
| Blastocyst | |
| Uterus | |
| Embryonic stage | |
| Fetal stage | |
| Internal fertilization | |
| External fertilization | |