

**MESA DAY 2022-23**

SCIENCE LAB BOOK REQUIREMENT

CRIME SCENE SCIENCE

**HIGH SCHOOL TEMPLATE**

NAMES:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 *(team member names)*

SCHOOL:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

CENTER: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

LEVEL (circle one): 9/10th gr 11/12th gr



1. **USING TWO TO THREE SENTENCES,** **ANSWER THE FOLLOWING QUESTIONS:**

*What is transcription?*

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*What is a Translation?*

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*What are the 3 main types of RNA?*

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1. **SKETCH of DNA with labeled parts (Sketches can be hand drawn or computer generated)**

*Adenine*

*Thymine*

*Guanine*

*Cytosine*

*Sugar phosphate backbone*

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1. **DEFINE THE SCIENTIFIC TERMS AND PROVIDE THREE (3) EXAMPLES FOR EACH OF THE FOLLOWING:**

*Phenotype*

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*Genotype*

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*Punnett Squares*

* *Please use THREE parent pairs of your choosing AND identify genotypes AND phenotypes when creating your punnett squares.*
* *Identify dominant and recessive genes for each parent and offspring.*
* *Determine the percent of each phenotype and genotype for each of the following sets.*

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1. **USING FOUR TO FIVE SENTENCES, WHAT ARE THE DIFFERENCE BETWEEN ANIMAL AND PLANT CELLS?**
* *Please include a sketch of an animal and plant cells with labeled parts (Sketches can be hand drawn or computer generated(MUST be original work)).*
* *Create a venn diagram highlighting the similarities and differences.*
* *Determine whether each is a prokaryotic or eukaryotic cell and include written answers under each sketch. Example: “Type of cell: \_\_\_\_\_\_\_”*

| *Difference between animal and plant cell:**Sketch of animal and plant cell:**Venn Diagram* |
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1. **SKETCH OF MICROSCOPE WITH LABELED PARTS (SKETCHES CAN BE HAND DRAWN OR COMPUTER GENERATED(MUST BE ORIGINAL WORK)):**

 Arm Head Ocular Lens/Eyepiece

Nose Piece Objective Lens Slide Holder Clips

Coarse Focus Fine Focus On/Off Switch

Illuminator/Light Source Base Stage

Condenser Iris Diaphragm Diopter Adjustment

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