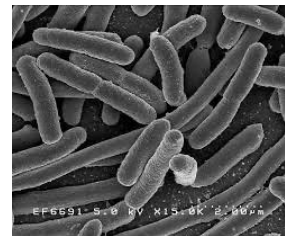


SI #13 LIFE 1010-01

- 1) Discuss with your group what an allele is and give an example.
- 2) Discuss the difference between genotype and phenotype.
- 3) Identify whether each of the organisms below could be classified as a model organism.



- 4) Would a parent who lost their right arm in a traumatic incident have a child born with only one arm? What are some traits that are known to be heritable?

- 5) Complete the dihybrid cross below for an F1 generation of YyRr. What is the phenotypic proportions of the resulting offspring?

- 6) What is used to determine the genotype of an organism? What genotype must the parent not being tested be?
- 7) a) Say a royal blue flower and a white flower produce an offspring that is sky blue. What form of dominance is observed in this scenario?
- b) Say a parent with type A blood reproduces with another parent with type B blood and has an offspring with type AB blood. What form of dominance is observed in this scenario?

Unit Review Part II

- 1) Determine the type of mutation based on the prompts.
 - a. 5' AUGGCCCCGAGGGCCC 3' Underlined C is changed to U.
 - b. 5' AUGGCCCCGAGGGCCC 3' Underlined G is changed to A.
 - c. 5' AUGGCCCCGAGGGCCC 3' Underlined C is changed to A.
 - d. 5' AUGGCCCCGAGGGCCC 3' Underlined G is deleted.
- 2) Draw a diagram of all the steps of Mitosis
- 3) Draw a diagram of all the steps of meiosis I

Questions?