Name: Period:

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| **AP Biology Unit 5. Campbell Ch.13-15.** Your task is to create a quick study card for the Exam. MUST be handwritten. **Accuracy, Neatness – Use ruler to draw charts, tables, etc. and appropriate use of color.** Color needs to be embedded and used appropriately (**DO NOT just color large sections different colors.)** Title of the Quick Study Card in the Top Center of the page First and Last Name, Date in upper right. | **checklist** |
| **1.** Science skills: How is a chi square test carried out? What do its results tell you? What types of data are suitable for chi square analysis?  |  |
| **2.**  Diagram the stages of meiosis for a cell with 6 chromosomes. Use color to indicate maternal/paternal chromosomes. Will you always get the same final gametes? |  |
| **3.** Make a chart to compare and contrast meiosis and mitosis. |  |
| **4**. Diagram crossing over. When does it happen and what is its importance? |  |
| **5.** List the mechanisms which create genetic variation in sexually reproducing organisms. |  |
| **6.** List at least 4 conserved processes, molecules, or cell components which support the concept of a universal common ancestor. |  |
| **7.** Define Mendel’s two laws and state their cellular basis and limitations. |  |
| **8.** How do we use probability rules to predict the results of genetic crosses? Cite equations. |  |
| **9.** Diagram simple pedigrees for a dominant trait, a recessive trait, and a sex-linked recessive trait. Label with appropriate genotypes. |  |
| **10.** What is gene linkage? How do results of genetic crosses indicate linkage? How are map distances calculated? |  |
| **11.** Not all traits follow Mendelian patterns. Explain how this statement applies to: a. multi gene traits, b. mitochondria and chloroplasts. |  |
| **12.** Give an example of how environment can influence phenotype. Define plasticity. |  |
| **13.** Give evidence for the chromosomal theory of Inheritance. |  |
| **14.** Make a chart of 3 human genetic disorders, their symptoms, and their causes. |  |
| **15. Draw Punnett squares for a monohybrid cross, a sex-linked cross, and a dihybrid cross. Give the expected phenotype and genotype ratios for each.** |  |
| **TOTAL** |  |