Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_

Score: \_\_\_\_\_\_ /16 points

Discussion Questions for Inheritance Lab Activity

1. What are the possible genotypes of both parents who have children with medium spaced eyes (Ee)? (3pts)
2. Draw a Punnett Square for a father with bushy eyebrows (BB) and a mother with fine eyebrows (bb). (2 pts)

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What are the phenotypes of the offspring whose father has bushy eyebrows (BB) and mother has fine eyebrows (bb)? (1 pt)

1. If any of the children your classmates drew have similar phenotypes as the child you drew, will they have an identical genotype? Explain your answer. (2 pts)
2. Do you think that it is likely that other parents in your classroom could have children that have the same genetic identity as the child you drew? Provide your reasoning. (2 pts)
3. The coin-toss activity was a model used to simulate the passage of traits from parent to offspring. Describe the similarities and differences between the model and the activity. (2 pts)
4. Select one of the following inherited conditions and describe in complete sentences and your own words how people inherit this disease using your knowledge of genetics and the following resource: <http://ghr.nlm.nih.gov/condition/>

Use in-text citations (Author, Date) to support your statements. (4 pts)

Huntington Disease

Tay-Sachs Disease

Cystic Fibrosis

Sickle Cell Anemia