# Science Competition Title: Designer Genes

Instructor's Name: Kate Plager

School of Instructor: Thornton Township High School

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#### Date Competition Rules were created: 2010

#### **Description and Rules for Competition:**

- 1. Students will solve problems using their knowledge of genetics.
- 2. Non-programmable calculators may be used, but reference materials may not be used during the competition.
- 3. This event will be run at stations. Contestants will be given a variety of genetics problems to solve.
- 4. Possible areas to be tested may include: monohybrid crosses, dihybrid crosses and multiple alleles. Students should have knowledge of Mendelian genetics, molecular genetics, modern genetics, biotechnology as it relates to genetics, population genetics, and probability.
- 5. Skills needed include the ability to make observations, inferences, predictions, analyze data, and perform calculations to solve genetics problems.

# How Scoring will be performed:

The team with the highest number of correct solutions will determine the winner.

# How Tie-Breaker will be performed (if needed):

Selected questions may be used as tiebreakers.

# Number of students allowed in each individual team:

Two students.

#### Number of teams allowed to compete from each individual school:

One team is allowed per school.

