Tater Tots

PART 1 - GENOTYPE TO PHENOTYPE

MATERIALS NEEDED - Egg with chromosomes, Sperm with chromosomes, Tater Tots and parts, Phenotype chart, data sheet

Procedure:

1. Work in pairs to create a Boy or Girl Tater Tot. Choose a sperm and an egg that contain chromosomes for your Tater Tot.
2. Read the chromosomes and mark down the genotype for each characteristic for your Tot.
3. Complete the next 2 columns on your data table. When you are looking at whether something is dominant or recessive, can you tell if it is TRUE dominant recessive or is it incompletely dominant or codominant?
4. Use the Phenotype chart to complete the last column.
5. Once the chart is complete, you will build your Tot. Go the the Boy station or the Girls station depending on what the gender is of your Tater Tot.
6. Answer all analysis questions.

PART 2 - PROTEIN SYNTHESIS

MATERIALS NEEDED - amino acid sequence chart, codon chart, data table and or Tater Tot, part 1 answer document for each group

1. Use the amino acid sequence chart to find out what the amino acid sequence is for each characteristic for your Tater Tot.
2. Using the codon chart, find a codon for each of the amino acids in your sequence. There may be more than one choice, pick whichever codon sequence you would like.
3. Once you have completed your mRNA strand, convert that into your DNA sequence.