Name: _____

Date: _____ Entry # _____

DNA Coding: My DNA Pet

Directions: You will be given a new pet, but all you know about it is its DNA code. Use the DNA code to find out what your pet looks like. Sketch your pet at the bottom.

Each number has a piece of your pet's genetic code (DNA). This piece has the information for a certain gene (characteristic). Match the bases to make a strand of messenger RNA (mRNA). Each group of three bases on the mRNA forms a codon. The codon matches an amino acid. **Use the table to find the correct amino acid from the mRNA codon.** The amino acids join together to form a protein. The protein will determine which characteristic your pet has.

I. Head Shape:

DNA strand: T A G G A T C C T

mRNA: _____

Amino Acids: _____ _____ _____

HEAD:

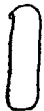Ile, Leu, Gly

Leu, Ala, Glu

Ile, Pro, Arg

II. Body Shape:

DNA strand: A C G A G T T A T

mRNA: _____

Amino Acids: _____ _____ _____

BODY:

Cys, Ser, His

Cys, Ser, Ile

Ser, Cys, Thr

III.   Face:

DNA strand: T   C   A   G   T   A   G   C   T

mRNA: _____

Amino Acids: _____

FACE:

Gly, Thr, Arg   Ser, His, Arg   Gly, Thr, Trp

IV.   Ears:

DNA strand: G   T   C   G   C   T   A   C   A

mRNA: _____

Amino Acids: _____

EARS:

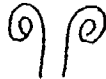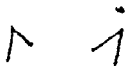Gln, Arg, Cys   Asn, Arg, Leu   Val, Ser, Phe

V.   Legs/Feet:

DNA strand: T   T   A   G   A   G   T   A   A

mRNA: _____

Amino Acids: _____

APPENDAGES/LEGS/FEET:

Gly, Tyr, Cys   Asn, Leu, Ile   Gly, Phe, Pro

MY NEW PET: