

Name _____ Period _____ Date _____

SNORK Activity

Protein Synthesis – Transcription & Translation

Question: How does DNA determine the traits of an organism?

Introduction: In this simulation, you will examine the DNA sequence of a fictitious organism: the Snork. Snorks were discovered on the planet Dee Enae in a distant solar system. Snorks only have one chromosome with 8 genes on it. Your job is to analyze the genes of its DNA and determine what traits the organism has.

*Typically an amino acid sequence will determine a particular protein, but for this creature we are saying that it will identify a particular trait.

Snork DNA & Traits.

mRNA Codon	Amino Acid Number	Amino Acid Sequence	Trait
GGG	1	20-11-13	Hairless
GCU	2	20-12-13	Hairy
GCG	3	20-21-21	Plump
UUG	4	13-14-15	Skinny
CCC	5	16-2-5	4 legged
UAG	6	16-4-5	2 legged
UCC	7	12-7-8	Round head
UUU	8	5-7-8	Block head
AAA	9	9-8-8	No tail
GAU	10	9-4-8	Tail
CCU	11	11-3-2	Slanted eyes
CCA	12	11-3-3	Wide round eyes
AUA	13	7-8-12	Small mouth
AAG	14	7-12-8	Large mouth
AGA	15	14-5-20	Long droopy ears
UCG	16	14-20-5	Short perky ears
UGG	20	6-6-10	Male
		6-6-14	female