

Name

Date

Per

Build-A-Bug Protein Synthesis Activity

Part 1: Your bug's DNA codes for proteins, which are made of amino acids. The proteins made by your bug's cells determine your bug's traits. Use the mRNA codon chart and your knowledge of transcription and translation to complete the chart below.

Part 2: Once you know the traits for your bug, cut out the correct parts and put the bug together and color it accordingly. You will also need to color your bug according to the traits it has.

Bug DNA Letter (A,B, C , D or E) B

Your Bug's Name: Joy

Gene	DNA Triplets	mRNA Codons	Amino Acid Chain	Trait
Head Size	GAC/GAACT	CUC CUU/GAA	Leu Leu Glu	large head
Thorax Size	ACCT ACC G	UCC GCG AUG GAC	try asp Gly	short thorax
Abdomen Size	CATAAAATG	GUANUUUAC	val Phe tyr	short abdomen
Eye Color	ACCTAAACAAACA	AUG CAU UUU GUG UAC	Cys Ile Leu Leu	white
Wing Color	CCACTTAGCGCGCG	GUG APU CCG GCG	Gly Glu Ser	yellow
Wing Length	TAG CCG AAC G	AUCCGCG UGC	Ile ala Cys	short wings
Leg Length	CGACACATTAG	CCU GUG CAA UCC	pro cys glu ser	short legs
Antenna	TGACAAAGT	ACCU GUG CA	thr Cys ser	absent
Body Color	GTCGACGAC	CAC CUU CCG	his pro Arg	orange

Color and paste (or tape) your bug in the space below:

