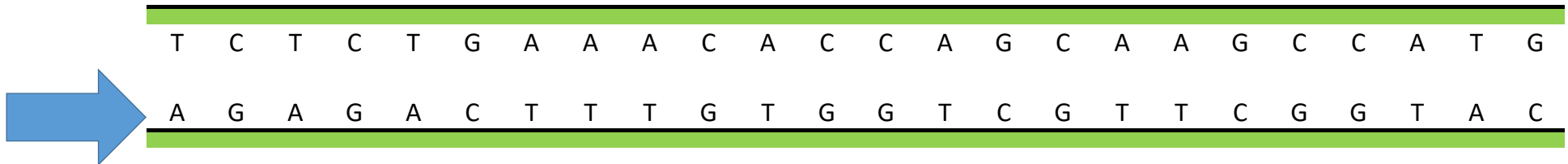


KEY

M. Skyer, 2019

BUG BABY #1 - DNA TEMPLATE



Remember to use the lower DNA strand to make your RNA transcript below

BUG BABY #1 - RNA TRANSCRIPT

U C U C U G A A A C A C C A G C A A G C C A U G

BUG BABY #1 - CODONS AND AMINO ACIDS

Amino Acid	SERINE	LEUCINE	LYSINE	HISTIDINE	GLUTAMINE	GLUTAMINE	ALANINE	METHIONINE
Codon	U C U	C U G	A A A	C A C	C A G	C A A	G C C	A U G
RNA Strand								

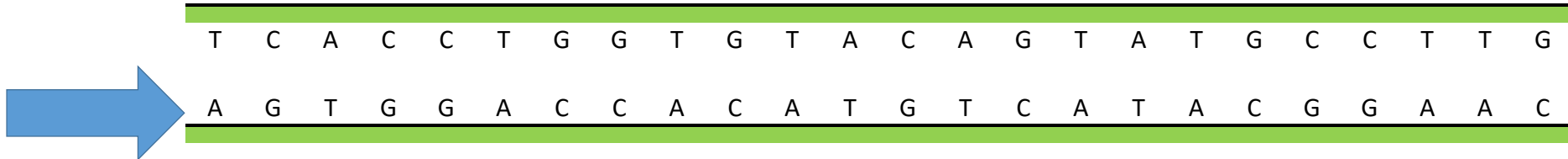
BUG BABY #1 - AMINO ACIDS TO TRAITS

Amino Acid	SERINE	LEUCINE	LYSINE	HISTIDINE	GLUTAMINE	GLUTAMINE	ALANINE	METHIONINE
Protein/Trait	Straight Antennae		All White Body and Head		Four Legs		Straight Tail	

KEY

M. Skyer, 2019

BUG BABY #2 - DNA TEMPLATE



Remember to use the lower DNA strand to make your RNA transcript below

BUG BABY #2 - RNA TRANSCRIPT



BUG BABY #2 - CODONS AND AMINO ACIDS

Amino Acid	SERINE	PROLINE	GLYCINE	VALINE	GLUTAMINE	TYROSINE	ALANINE	LEUCINE
Codon	U C A	C C U	G G U	G U A	C A G	U A U	G C C	U U G
RNA Strand								

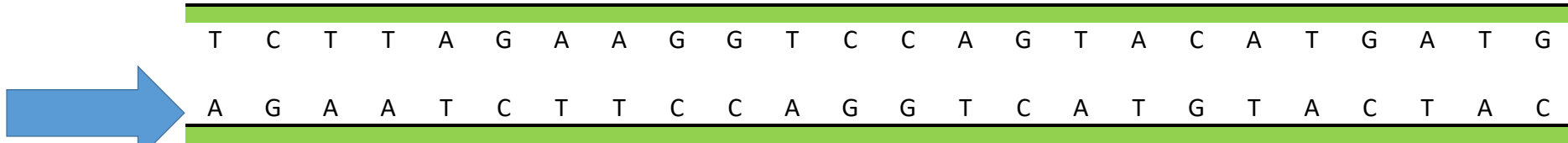
BUG BABY #2 - AMINO ACIDS TO TRAITS

Amino Acid	SERINE	PROLINE	GLYCINE	VALINE	GLUTAMINE	TYROSINE	ALANINE	LEUCINE
Protein/Trait	Curly Antennae		All Pink Body and Head		Six Legs		Curly Tail	

KEY

M. Skyer, 2019

BUG BABY #3 - DNA TEMPLATE



Remember to use the lower DNA strand to make your RNA transcript below

BUG BABY #3 - RNA TRANSCRIPT



BUG BABY #3 - CODONS AND AMINO ACIDS

Amino Acid	SERINE	STOP	LYSINE	VALINE	GLUTAMINE	TYROSINE	METHIONINE	METHIONINE
Codon	U C U	U A G	A A G	G U C	C A G	U A C	A U G	A U G
RNA Strand								

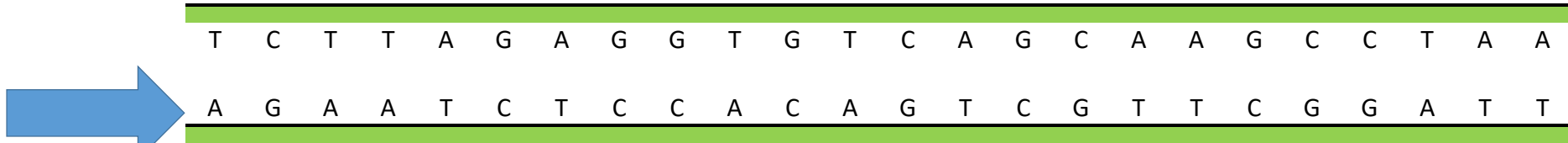
BUG BABY #3 - AMINO ACIDS TO TRAITS

Amino Acid	SERINE	STOP	LYSINE	VALINE	GLUTAMINE	TYROSINE	METHIONINE	METHIONINE
Protein/Trait	No Antennae		All white body and head with pink middle segment		Six Legs		Forked Tail	

KEY

M. Skyer, 2019

BUG BABY #4 - DNA TEMPLATE



Remember to use the lower DNA strand to make your RNA transcript below

BUG BABY #4 - RNA TRANSCRIPT

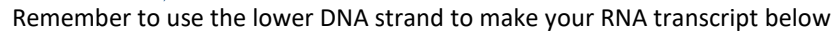


BUG BABY #4 - CODONS AND AMINO ACIDS

Amino Acid	SERINE	STOP	ARGININE	CYSTEINE	GLUTAMINE	GLUTAMINE	ALANINE	STOP
Codon	U C U	U A G	A G G	U G U	C A G	C A A	G C C	U A A
RNA Strand								

BUG BABY #4 - AMINO ACIDS TO TRAITS

Amino Acid	SERINE	STOP	ARGININE	CYSTEINE	GLUTAMINE	GLUTAMINE	ALANINE	STOP
Protein/Trait	No Antennae		All white body and pink head		Four Legs		No Tail	



BUG BABY #1 - RNA TRANSCRIPT

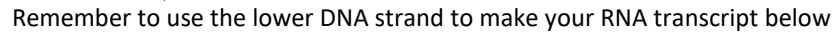
[illegible]

BUG BABY #1 - CODONS AND AMINO ACIDS

[illegible]

BUG BABY #1 - AMINO ACIDS TO TRAITS

Amino Acid							
Protein/Trait							



BUG BABY #2 - RNA TRANSCRIPT

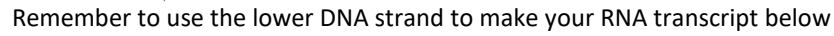
[illegible]

BUG BABY #2 - CODONS AND AMINO ACIDS

[illegible]

BUG BABY #2 - AMINO ACIDS TO TRAITS

Amino Acid							
Protein/Trait							



BUG BABY #3 - RNA TRANSCRIPT

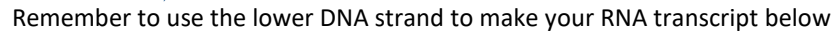
[illegible]

BUG BABY #3 - CODONS AND AMINO ACIDS

[illegible]

BUG BABY #3 - AMINO ACIDS TO TRAITS

Amino Acid							
Protein/Trait							



BUG BABY #4 - RNA TRANSCRIPT

[illegible]

BUG BABY #4 - CODONS AND AMINO ACIDS

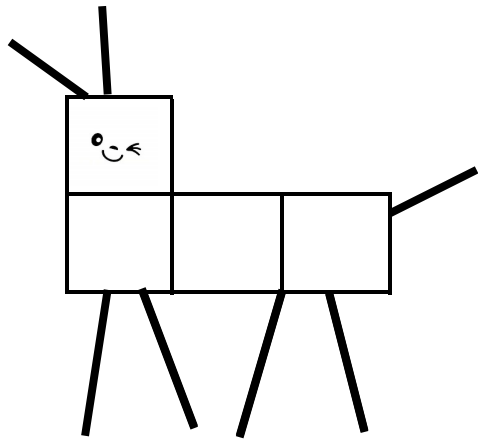
[illegible]

BUG BABY #4 - AMINO ACIDS TO TRAITS

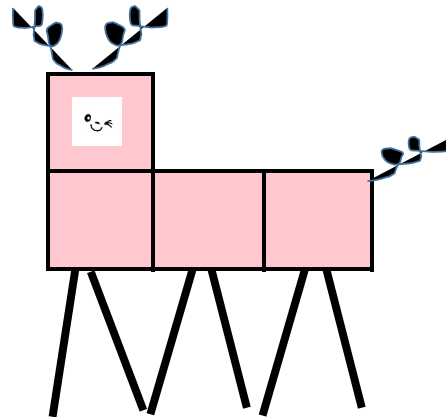
Amino Acid							
Protein/Trait							

Protein Decoder

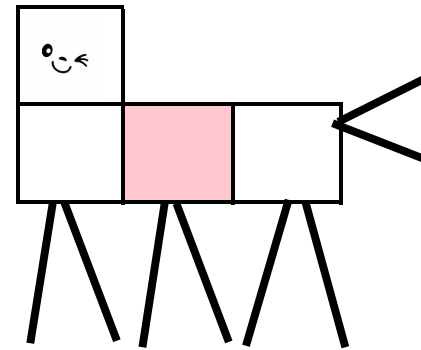
Amino Acids	Trait
Serine + Leucine	Straight antennae
Serine + Proline	Curly antennae
Serine + Stop	No antennae
Lysine + Histidine	White body and head
Glycine + Valine	Pink body and head
Lysine + Valine	White body and head, pink middle segment
Arginine + Cysteine	White body, pink head
Glutamine + Glutamine	Four legs
Glutamine + Tyrosine	Six legs
Alanine + Methionine	Straight tail
Alanine + Leucine	Curly tail
Methionine + Methionine	Forked tail
Alanine + Stop	No tail



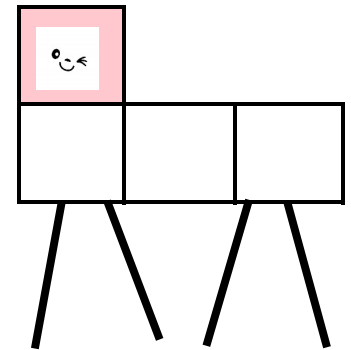
Baby 1 phenotype



Baby 2 Phenotype



Baby 3 Phenotype



Baby 4 Phenotype

Supplies to order:

- 1) Bags of mixed white and pink marshmallows - body segments
- 2) Black pipe cleaners - tail pieces
- 3) Box of thumbtacks - legs
- 4) Sharpie markers - face markings
- 5) Package of toothpicks - hold together body segments

M. Skyer, 2019

Bases DNA RNA

A and T A and U

G and C G and C

Genotype

Phenotype



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