Protein-Phrase Synthesis

2nd Anticodon

1st Anticodon	A	G	U	C	3rd Anticodon
A	I	L	I	M	A
	N	O	M	O	G
	I	J	I	K	U
	N	O	M	O	C
G	S	T	P	T	A
	S	S	P	T	G
	R	R	P	R	U
	S	U	Q	U	C
U	E	E	A	E	A
	F	F	A	G	G
	B	B	A	D	U
	START	G	A	H	C
C	Q	Z	W	I	A
	C	A	X	T	G
	STOP	Y	V	T	U
	STOP	E	Y	U	C

Instructions: **On a separate piece of paper aligned lengthwise, label and copy a DNA code. Create a complementary mRNA strand below the DNA strand (Transcription). Create a complementarty tRNA strand below the mRNA strand. Use the chart to the left to decode the message. Using the tRNA anticodons, determine the corresponsing letters of the phrase and write the decoded phrase below the tRNA strand (Translation).**

How to use the Decoding Chart: Find the first base of the anticodon on the far left-hand column of the chart. This will determine the rows that the letter will lie within. Then locate the second base on the top; this determines the column that the letter will lie within. Finally, find the third base on the far right-hand column. Follow the row left from that base and it will narrow your selection to the cell that the letter (analygous to an amino acid) is in. Now you should have the decoded phrase.

DNA STRAND # 1

TAC	AGT	GCC	GAG	GGA	TCT	AGG	ATT	GGA	CAT
start	j	u	s	t	d	o	i	t	stop

DNA STRAND # 2

TAC	TCG	ACG	CTA	AAA	AGA	TCT	CAG	TTG	GGA	GAC	CAT
start	g	o	w	i	l	d	c	a	t	s	stop

DNA STRAND # 3

TAC	CTA	TCC	TTT	CCG	GAC	CCC	GTA	TCT	AGG	CAG	CAC
start	w	h	a	t	s	u	p	d	o	c	stop

DNA STRAND # 4

TAC	ATA	AGA	AGG	CTT	TGA	TAT	AAA	ACG	AGA	ACC	TCG	CGT	CAT
start	i	l	o	v	e	b	i	o	l	o	g	y	stop

DNA STRAND # 5

TAC	CTC	AGG	TAT	TTT	TAT	CTC	CGT	AGG	TAT	TTG	TAT	CTC	CGT	ACG	CAT
start	y	o	b	a	b	y	y	o	b	a	b	y	y	o	stop

DNA STRAND # 6

TAC	TAT	TAA	TTT	ATG	ATG	TAA	GGC	GTT	GAA	CAG	AGG	GGA	GGA	CTC	CAC
start	b	e	a	m	m	e	u	p	s	c	o	t	t	y	stop

DNA STRAND # 7

TAC	CCG	TCC	ATA	GGG	AAA	GAA	AAG	GCA	GAG	ACG	TCC	CGG	GGT	TCT	CAC
start	t	h	i	s	i	s	n	t	s	o	h	a	r	d	stop

DNA STRAND # 8

TAC	CGT	ACG	GCC	GGT	TAA	GCC	AAG	TAT	TGA	AGA	AAA	TAA	CTT	CGG	TAT	AGA	TAA	CAT
start	y	o	u	r	e	u	n	b	e	l	i	e	v	a	b	l	e	stop

DNA STRAND # 9

TAC	ACA	ACG	CCC	AAG	CCG	TTG	AAT	AAC	CTT	AAA	TCA	CTA	GAT	CCC	AGA	TAA	GAG	CAC
start	m	o	u	n	t	a	i	n	v	i	e	w	r	u	l	e	s	stop

DNA STRAND # 10

TAC	GAT	TTT	AAG	TCT	AGG	ACA	TTA	CAG	GGA	GAA	AGC	TAG	ACT	ATT	AAG	TCT	AAG	TGA	GAA	GAA	CAC
start	r	a	n	d	o	m	a	c	t	s	o	f	k	i	n	d	n	e	s	s	stop

DNA STRAND # 11

TAC	TCC	TGA	CTC	TCT	CCC	TCT	CGC	CAT
start	h	e	y	d	u	d	e	stop

DNA STRAND # 12

TAC	AAT	GGG	AAC	CCG	GCA	TCC	AAT	GAA	TGG	CCC	AAG	CAC
start	i	s	n	t	t	h	i	s	f	u	n	stop

DNA STRAND # 13

TAC	TCG	AGG	AGG	TCT	AGT	AGC	TAT	ACT	AAT	TCT	TCT	ACG	CAT
start	g	o	o	d	j	o	b	k	i	d	d	o	stop

DNA STRAND # 14

TAC	GGA	TCC	TTA	GGA	GAA	TTT	AGA	AGA	TAG	AGG	AGA	ACT	GAA	CAT
start	t	h	a	t	s	a	l	l	f	o	l	k	s	stop

DNA STRAND # 15

TAC	TCC	TTG	CTT	TCA	TTA	TCG	GAT	TAA	TTG	GCA	TCT	TTT	CTC	CAC
start	h	a	v	e	a	g	r	e	a	t	d	a	y	stop

DNA STRAND # 16

TAC	CGT	CGC	TTC	TCC	ATG	GAA	CAG	AGG	GCA	TGA	CAC
start	y	e	a	h	m	s	c	o	t	e	stop

DNA STRAND # 17

TAC	CTA	TCC	TAA	GAT	TAA	GGG	GGA	TCC	TAA	TAT	TAA	TCA	TAG	CAC
start	w	h	e	r	e	s	t	h	e	b	e	e	f	stop

DNA STRAND # 18

TAC	CTA	ACG	GAT	TCT	GGA	AGC	CTC	AGG	CCC	GAT	ACA	AGG	GGA	TCC	TAA	GGT	CAT
start	w	o	r	d	t	o	y	o	u	r	m	o	t	h	e	r	stop

DNA STRAND # 19

TAC	GAC	GGC	CAG	CAG	TAA	GGG	GAC	AAT	GAG	TTT	AGT	AGC	GGC	GGT	AAC	TCA	CTC	CAT
start	s	u	c	c	e	s	s	i	s	a	j	o	u	r	n	e	y	stop

DNA STRAND # 20

TAC	TTT	GGA	GGA	AAA	CCG	CCC	TCT	TAA	AAA	GAC	TAA	CTT	CGC	GAT	CTC	CCG	TCC	AAT	AAC	TGC	CAT
start	a	t	t	i	t	u	d	e	i	s	e	v	e	r	y	t	h	i	n	g	stop