L-letter abbreviation	D	D	G
Amino acid name			
		L	
able 2: Possible codons whic	h could product the indicate	d amino acids.	
	Aspartic Acid	Glycine	
List all possible codons for	7 Spartie 7 Cla	diyeme	
these amino acids:			
able 3: Determining a DNA se	equence that is complement	ary to the given piece of RNA	which would code for the
roduction of the DDG portion	n of a CESA polypeptide.		
Amino acid sequence	Asp	Aspartic Acid—Aspartic acidGlycine	
One possible RNA sequence		•	•
		GACGAUG	GG
		0/100/100	00
	,		
Table 4: For any section of DN nitially unknown. Until the se ntisense strand of the DNA nhe sense or antisense strand	IA sequence submitted to or quence is analyzed, it is also nolecule. You will analyze a s of DNA. Follow the models.	ne of the databases, the positi unknown whether the seque small section to determine the Use the codon chart in Figure	on of the proper reading frame nce is from the sense or e proper reading frame and if it 2 to determine the amino acid
<b>Table 4</b> : For any section of DN nitially unknown. Until the se ntisense strand of the DNA nhe sense or antisense strand	IA sequence submitted to or quence is analyzed, it is also nolecule. You will analyze a so of DNA. Follow the models.	ne of the databases, the position unknown whether the seque small section to determine the Use the codon chart in Figure was submitted to a database:	on of the proper reading frame nce is from the sense or e proper reading frame and if it 2 to determine the amino acid
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able 4: For any section of DN nitially unknown. Until the sentisense strand of the DNA ne sense or antisense strand The following is a small samp	IA sequence submitted to or quence is analyzed, it is also nolecule. You will analyze a sof DNA. Follow the models. Die sequence of nucleotides GGCTGCTACCO late the six possible amino	ne of the databases, the position unknown whether the seque small section to determine the Use the codon chart in Figure was submitted to a database:	on of the proper reading framence is from the sense or e proper reading frame and if it 2 to determine the amino acid
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able 4: For any section of DN nitially unknown. Until the sentisense strand of the DNA ne sense or antisense strand. The following is a small samp. In the spaces below, trans when reading the codon code.	IA sequence submitted to or quence is analyzed, it is also nolecule. You will analyze a sof DNA. Follow the models.  DIE sequence of nucleotides of GCTGCTACCC late the six possible aminothart, substitute uracil whereas the sense strand	ne of the databases, the position unknown whether the sequent and section to determine the Use the codon chart in Figure was submitted to a database:  To acid sequences for which the ere you see thymine:	on of the proper reading frame nce is from the sense or e proper reading frame and if it 2 to determine the amino acid this might code. Remember
able 4: For any section of DN nitially unknown. Until the sentisense strand of the DNA neesense or antisense strand. The following is a small samp. In the spaces below, trans when reading the codon code.  Reading frame 1, as if this ware about the codon.	IA sequence submitted to or quence is analyzed, it is also nolecule. You will analyze a sof DNA. Follow the models.  Ide sequence of nucleotides of GCTGCTACCO late the six possible amino thart, substitute uracil whereas the sense strand  In a glycine — cystems	ne of the databases, the position unknown whether the seque small section to determine the Use the codon chart in Figure was submitted to a database:	on of the proper reading framence is from the sense or proper reading frame and if it to determine the amino acide this might code. Remember
able 4: For any section of DN nitially unknown. Until the sentisense strand of the DNA nine sense or antisense strand. The following is a small samp. In the spaces below, trans when reading the codon codon from the spaces of this was a sift thin the sift thin th	IA sequence submitted to or quence is analyzed, it is also nolecule. You will analyze a sof DNA. Follow the models.  Ide sequence of nucleotides of the sequence of six possible aminothart, substitute uracil whereas the sense strand  In a glycine — cystems of the sense strand  In a glycine — cystems of the sense strand  In a glycine — cystems of the sense strand	ne of the databases, the position unknown whether the sequent and section to determine the Use the codon chart in Figure was submitted to a database:  To acid sequences for which the ere you see thymine:	on of the proper reading framence is from the sense or proper reading frame and if it to determine the amino acide this might code. Remember
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Table 4: For any section of DN nitially unknown. Until the sentisense strand of the DNA nitisense strand of the DNA nitisense or antisense strand. The following is a small samp. In the spaces below, trans when reading the codon code Reading frame 1, as if this was a feeding frame 2, as if this was a feeding frame 3, as if this was a feeding frame 4.	IA sequence submitted to or quence is analyzed, it is also nolecule. You will analyze a sof DNA. Follow the models.  DIE sequence of nucleotides of the sequence of nucleotides and the six possible aminothart, substitute uracil whereas the sense strand    glycine — cystem as the sense strand  as the sense strand  as the sense strand	ne of the databases, the position unknown whether the sequent and section to determine the Use the codon chart in Figure was submitted to a database:  To acid sequences for which the ere you see thymine:	on of the proper reading frame nce is from the sense or e proper reading frame and if it 2 to determine the amino acid this might code. Remember
nitially unknown. Until the sentisense strand of the DNA new sense or antisense strand. The following is a small samp. In the spaces below, trans when reading the codon code.	IA sequence submitted to or quence is analyzed, it is also nolecule. You will analyze a sof DNA. Follow the models.  DIE sequence of nucleotides of the sequence of nucleotides and the six possible aminothart, substitute uracil whereas the sense strand    glycine — cystem as the sense strand  as the sense strand  as the sense strand	ne of the databases, the position unknown whether the sequent and section to determine the Use the codon chart in Figure was submitted to a database:  To acid sequences for which the ere you see thymine:	on of the proper reading frame nce is from the sense or e proper reading frame and if it 2 to determine the amino acid this might code. Remember

Cellulose Synthase Genes: Where do we start?

Name: \_\_\_\_\_

The complement of the submitted sequence, Reading frame 1, as if this was the sense strand
CCG ACG ATG GGA→
The complement of the submitted sequence, Reading frame 2, as if this was the sense strand
C <u>CGA CGA TGG</u> GA →
The complement of the submitted sequence, Reading frame 3, as if this was the sense strand
$CC GAC GAT GGG A \rightarrow$
Now, if someone submitted a query for the amino acid sequence DDG, which of these would code for that?
BLAST Questions:
Are there any of the results that show 100% identity to the sequence from your query? Why or why not? If so, what species are they from?
2. Look at the list and choose one result that does not have 100% identity. Write the species name here:
Look up the common name of this plant. Write it here:
3. Click on the name of the plant. This takes you to a screen where we can learn more about the part of the DNA sequence that was found to align with the sequence that we queried. Here there are also links to additional information. Click on "GenBank". What kind of information is available here?
Why do you think that this information must be submitted whenever sequence is submitted to the Gene Bank?