

Chapter 14.1 RNA - Reading Guide (Bee Book)



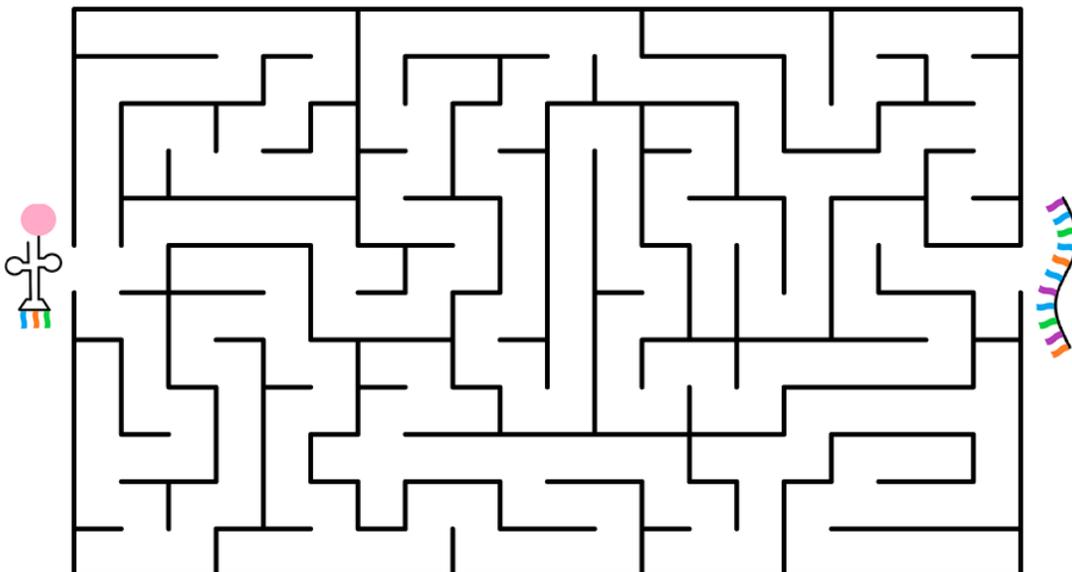
Case Study: How does a plant remember winter?

1. What type of food is made with wheat? _____
2. When is winter wheat planted? _____
3. What must happen before these plants produce flowers? _____

14.1 RNA

4. RNA uses the instructions from DNA to direct the production of _____
5. RNA is composed of the sugar _____
6. Use figure 14-1 to answer True or False to the following statements:
 RNA is single stranded
 Both DNA and RNA contain thymine.
 Only RNA has uracil.
7. Match the type of RNA to the description.

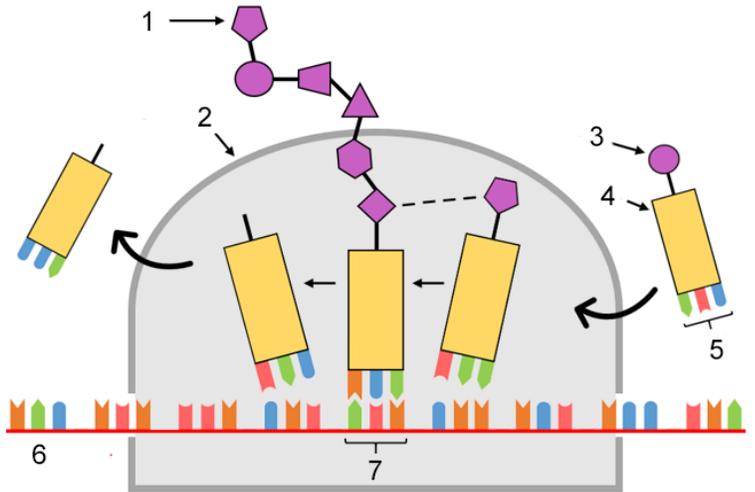
<input type="checkbox"/> mRNA	a) subunits of the ribosome
<input type="checkbox"/> rRNA	b) carries amino acids to the ribosome
<input type="checkbox"/> tRNA	c) carries the instructions from DNA to the ribosome
8. The process of copying a base sequence from DNA to RNA is called _____
9. Segments of DNA serve as _____ to produce RNA molecules.
10. RNA polymerase binds to regions of DNA called _____
11. Portions of DNA that are cut out and discarded are called _____
12. What happens to the exons? _____



Chapter 14.2 Ribosomes and Protein Synthesis - Reading Guide (Bee Book)

1. Proteins are made by joining amino acids together into chains called _____
2. Three consecutive bases is called a _____
3. (Fig 14-5) Use the codon diagram to determine the amino acid for each codon.
 CAC = _____ UCC = _____
 GUU = _____ AAA = _____
4. How many different codons specify leucine? _____ tryptophan? _____
5. What is special about the AUG codon? _____
6. What happens when a stop codon is reached? _____
7. What cell structures assemble the polypeptide chains? _____
8. The process of using the mRNA chain to make a protein is called _____
9. What molecule brings the amino acids to the ribosomes? _____
10. Each tRNA is a complementary codon to the mRNA, it is called the _____
11. Examine the image on page 448 to label the diagram below

- 1) _____
- 2) _____
- 3) _____
- 4) _____
- 5) _____
- 6) _____
- 7) _____



12. Summarize the role of each of the RNA molecules in the process. (p 449)

mRNA _____
 tRNA _____
 rRNA _____

13. Molecular biology provides a way to understand the link between genes and _____
14. The most interesting discovery is that the genetic code is _____