

Name _____

Date _____

Use with textbook pages 123–129.

Inside the nucleus

Vocabulary	
23	nucleolus
46	nucleus
chromosomes	number
DNA	proteins
genes	ribosomes
genetic	type
molecule	

Use the terms in the vocabulary box to fill in the blanks. Each term may be used more than once. You will not need to use every term.

- The _____ directs and controls the ability of the cell to grow, develop, and replicate (make copies of itself).
- The instructions for how to carry out all cell activities are carried in _____, which is a long, two-stranded _____ with a shape like a ladder that has been twisted into a spiral shape.
- _____ stores instructions for everything that the cell does. It also stores _____ material—information that is passed on from one generation to another when organisms reproduce.
- Strands of DNA are packaged tightly into structures called _____.
- Each type of organism has a specific _____ of chromosomes.
- Humans have _____ chromosomes that are arranged in _____ pairs. One of these pairs helps determine if a person will be born as a male or a female.
- _____ are small segments of DNA that carry instructions for making proteins. They are found at specific places on _____.
- Proteins are a type of _____ that all the cells of the body need in order to work properly.
- Proteins are made in the cell by _____, which are made by a large structure in the nucleus called the _____.

Use with textbook pages 125–130.

The control centre of the cell

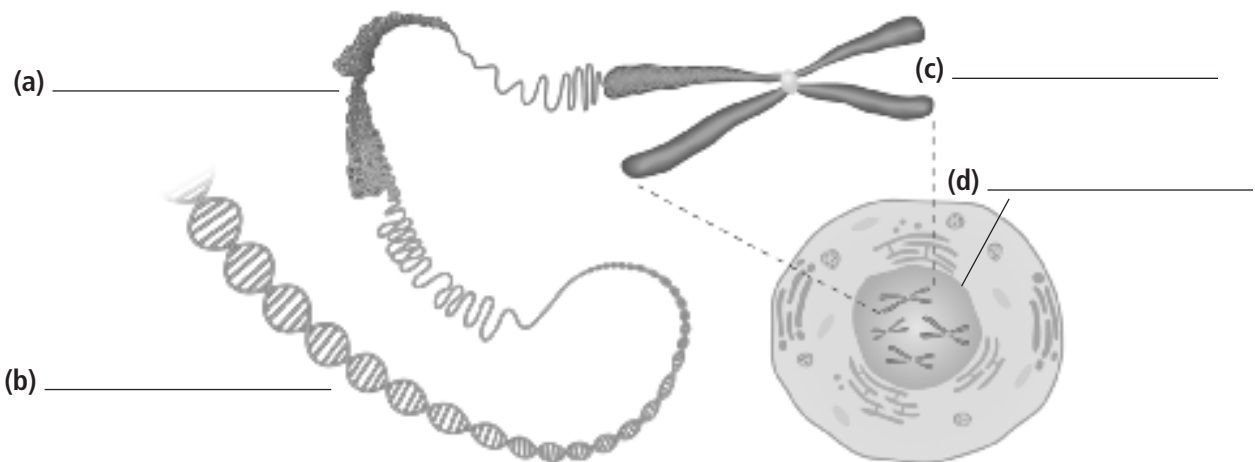
Use the diagram to help you answer question 1.



1. Describe the structure of DNA.

Fill in the blanks with the correct terms. Then use your answers to questions 2–5 to label the diagram below.

2. The control centre of the cell _____
3. Molecule containing instructions for everything the cell does _____
4. Tightly packaged structures of DNA _____
5. Segment with information to make a protein _____



Use with textbook pages 131–132.

True or false?

Read the statements given below. If the statement is true, write “T” on the line in front of the statement. If it is false, write “F” and rewrite the statement to make it true.

1. _____ The nucleolus directs and controls all of the cell’s activities.

2. _____ Instructions for how to carry out all cell activities are carried in molecules of DNA.

3. _____ DNA stores information that is passed on from one generation to another when organisms reproduce.

4. _____ Humans have 46 pairs of chromosomes.

5. _____ One pair of chromosomes helps determine if a person will be born as a male or female.

6. _____ The nucleolus makes ribosomes.

7. _____ Ribosomes make proteins.

8. _____ Genes make chromosomes.
