

Carbon Chemistry ▪ *Guided Reading and Study***Life With Carbon**

This section describes the four main classes of polymers in living things.

Use Target Reading Skills

Before your read, preview the red headings. In the graphic organizer below, ask a what question for each heading. As you read, write the answers to your questions.

Question	Answer
What is a carbohydrate?	A carbohydrate is . . .

Introduction

1. What are the four classes of polymers found in all living things?

Carbohydrates

2. What is a carbohydrate?

3. The sugar with the molecular formula of $C_6H_{12}O_6$ is called

_____.

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4. Why is glucose sometimes called “blood sugar”?

5. A large chainlike molecule made of simple carbohydrates is called a(n) _____.

6. Complete the table about complex carbohydrates.

Complex Carbohydrates		
Type	Description	Contained in These Foods
a. Starch		
b. Cellulose		

Proteins

7. Polymers formed from smaller molecules called amino acids are _____.

8. Is the following sentence true or false? There are four different kinds of amino acids. _____

9. How are different proteins made?

10. Circle the letter of each food that is a good source of protein.

a. fish

b. beans

c. potatoes

d. meat

11. What does the body use proteins for?

Carbon Chemistry ▪ *Guided Reading and Study***Lipids**

12. What are lipids?

13. What are four types of lipids?

14. Gram for gram, which stores more energy, lipids or carbohydrates?

15. What is each fat or oil made of?

16. A waxy lipid found in all animal cells is called

Nucleic Acids

17. What are nucleic acids?

18. Complete the table about types of nucleic acids.

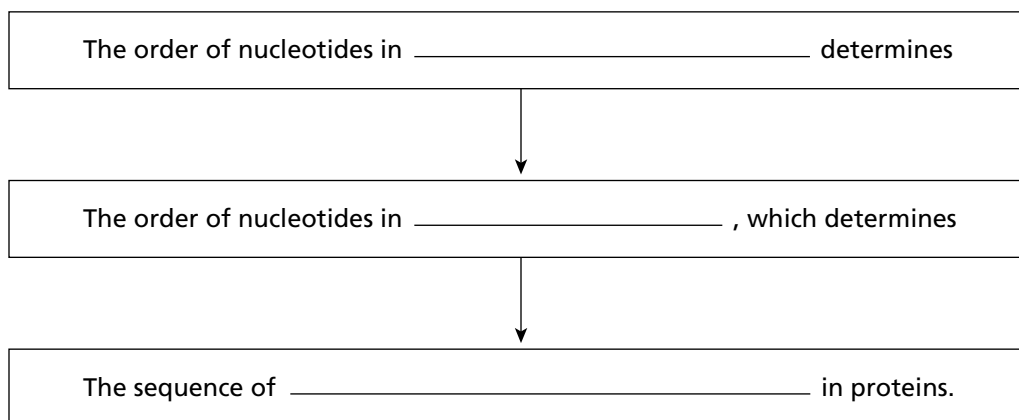
Nucleic Acids		
Common Name	Full Name	Composed of
a.	Deoxyribonucleic acid	Four kinds of
b.	Ribonucleic acid	Four kinds of

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19. The building blocks of nucleic acids are called _____.

20. What do the differences among living things depend on?

21. Complete the flowchart about nucleic acids.

**Other Compounds in Foods**

22. Complete the table about other compounds in foods.

Vitamins and Minerals		
Nutrient	Definition	Examples
a. Vitamins		
b. Minerals		

23. Is the following sentence true or false? Vitamins and minerals are only needed by your body in small amounts. _____