

Name \_\_\_\_\_

Period \_\_\_\_\_

Regents Biology

Date \_\_\_\_\_

## NUCLEIC ACIDS

1. What are the functions of a nucleic acids in living organisms?

a. \_\_\_\_\_

b. \_\_\_\_\_

2. What is the building block (monomer) for a nucleic acids? \_\_\_\_\_

3. What are the 3 parts of a nucleic acid monomer?

\_\_\_\_\_  
\_\_\_\_\_

4. Draw a simple diagram of the nucleic acid building block.

5. Name the two examples of nucleic acids in all organisms.

\_\_\_\_\_

6. What type of bond is used to bond the nucleic acid monomers together along one chain?

**STRONG**

or

**WEAK**

7. What type of bond is used to bond the nucleic acid chains together across the DNA double helix?

**STRONG**

or

**WEAK**

8. How is this difference in bonds important to the function of DNA in living organisms?

---

---

---

9. List the different kinds of nitrogen bases in all nucleic acids \_\_\_\_\_

10. List the nitrogen bases in DNA. \_\_\_\_\_

11. List the nitrogen bases in RNA. \_\_\_\_\_

12. Draw a simple diagram of a nucleic acid polymer.

13. Describe the shape of the DNA molecule. \_\_\_\_\_

---

14. Explain why this specific structure of DNA is very important to life on Earth.

---

---

---

---

15. Who was awarded the Nobel prize for the discovery of the structure of DNA?

---

16. When did they discover it? \_\_\_\_\_