

<p>Activity A: Build a DNA molecule</p>	<p><u>Get the Gizmo ready:</u></p> <ul style="list-style-type: none"> If necessary, click Reset to start the building process. 	
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Question: What is the structure of DNA?

1. Build: Follow the steps given in the Gizmo to construct a molecule of DNA. (Note: For simplicity, this DNA molecule is shown in two dimensions, without the twist.)

	Left side	Right side
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Stop when the hint reads: "The DNA molecule is complete." In the spaces at right, list the sequence of nitrogenous bases on the left-hand side of the DNA molecule and the right-hand side.

2. Explain: Describe the structure of the DNA molecule you made.

A. What makes up the sides of the DNA molecule? _____

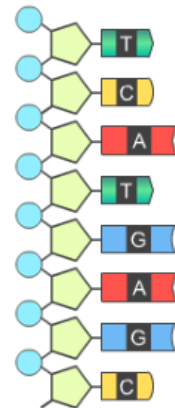
B. What makes up the "rungs" of the DNA molecule? _____

3. Fill in: Write the name of the nitrogenous base that joins to each of the bases below:

Adenine (A) joins to _____ Thymine (T) joins to _____

Cytosine (C) joins to _____ Guanine (G) joins to _____

4. Practice: The left side of a DNA molecule is shown. Draw a complementary right side of the molecule.



5. Challenge: This DNA strand consists of eight pairs of nitrogenous bases. How many different sequences of eight bases can you make? Explain how you found your answer.
