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$\qquad$ Date $\qquad$
Journey into DNA Interactive (22 pts)
1-2 of 15: Where is the human genome located in the human body? How does the genome in each cell compare? (2 pts)

4 of 15: What organelle contains the human genome? What is the function of this organelle? (2 pts)

5 of 15: How is the human genome, chromosomes, and genes related to each other? ( 2 pts )

8 of 15: What is a gene made of, and what does it do? (2 pts)

12 of 15

| Draw the double helix <br> $(1 \mathrm{pt})$ |
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|  |

What is the shape of the DNA molecule? (1 pt)

Who are the $\mathbf{3}$ scientists most responsible for discovering DNA's structure?
(3 pts)

13 of 15
Draw the picture
shown (1 pt)
What is the DNA molecule made of? (1 pt)
$\qquad$
Which bases pair together? (2 pts)

14 of 15
What 2 things do the sides of the DNA ladder consist of? (2 pts)

What are the 3 parts of a nucleotide? ( 3 pts )

## DNA Short Answer Questions

1. Describe the structure of the DNA molecule with as many details as possible. ( 10 pts )

- Key vocabulary: adenine, complimentary base pairs, cytosine, deoxyribose, DNA, double helix, guanine, hydrogen bond, nitrogenous base, nucleotide, phosphate, sugar-phosphate backbone, thymine

2. Describe the organization of genetic information with as many details as possible. (4 pts)

- Key vocabulary: chromosome, gene, genome, homologous pair

3. Describe the roles or functions of DNA in living things with as many details as possibly. (4 pts)

- Key vocabulary: heredity, protein, trait, variation

