

DNA BrainPOP Activity

Name _____

Go to www.brainpop.com and click the **Science** icon at the top. Then click the **Free Movies** icon, and finally **DNA**.

Watch the movie and answer the questions below. (Turn on Closed Captioning)

1. What does DNA stand for? What shape is it?
2. How long is a single strand of DNA?
3. What does DNA tell your cells to do? Give some examples.
4. What are the 4 different DNA bases that fit together like a puzzle?
5. How is a strand of DNA like a sentence?
6. How many genes do humans have?
7. What percent of our DNA is the same as a Chimpanzee?
8. What percent of our DNA is the same as a banana?
9. What does GMO stand for?

Click the Related Reading section at the right and read through each of the sections to answer questions below.

10. **Trivia:** What is a Chimera? How can someone become one?

11. **Did You Know:** What is Mitochondrial DNA? Who was Mitochondrial Eve?

12. **In Depth:** Why was there conflict among the people responsible for discovering DNA?

13. **Discoveries & Inventions:** What type of scientists use DNA to solve crimes?

14. **Flora & Fauna:** What was the first animal to have its DNA sequenced?

15. **Mother Nature:** Why are bacteria the fastest mutating organisms on the planet?

Click on the Quiz icon and play the review game. Write your score below.

Click on the Challenge icon and play the review game. Write your score below.

Click the Worksheet icon and identify the 2 pictures. Record your answers below.

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Click the Vocabulary icon and follow the directions to create flashcards. Test your knowledge and practice them online.

DNA BrainPOP

Name _____

Go to www.brainpop.com and click the **Science** icon at the top. Then click the **Free Movies** icon, and finally **DNA**.

Watch the movie and answer the questions below. (Turn on Closed Captioning)

1. Deoxyribonucleic acid. The shape is a double helix.

2. How long is a single strand of DNA?

Over 6 feet

3. What does DNA tell your cells to do? Give some examples.

DNA tells your cells which proteins to build, and how to build them.

It tells cells in your eyes to use crystallins to help you see. DNA also tells your red blood cells to build a protein called hemoglobin. It captures oxygen as blood passes through the lungs.

4. What are the 4 different DNA bases that fit together like a puzzle?

They are cytosine, guanine, adenine, and thymine.

5. How is a strand of DNA like a sentence?

They can be arranged into millions of different sequences, like sentences that spell out instructions for building any kind of protein

6. How many genes do humans have?

20,000 genes!

7. What percent of our DNA is the same as a Chimpanzee?

96%

8. What percent of our DNA is the same as a banana?

50%

9. What does GMO stand for?

Genetically Modified Organism

Click the Related Reading section at the right and read through ALL of the sections to answer questions below.

10. What is a Chimera? How can someone become one?

A person with two sets of DNA . It can happen when a pregnancy starts out as twins but a single baby is born. A bone marrow transplant can also cause one.

11. What is Mitochondrial DNA? Who was Mitochondrial Eve?

Mitochondrial DNA is circular shaped, just like the DNA in bacteria. These genes contain instructions for the proteins that the mitochondria needs to work properly. Mitochondrial Eve lived about 200,000 years ago in sub-Saharan Africa.

12. Why was there conflict among the people responsible for discovering DNA?

Watson and Crick were negative towards each other and didn't give Franklin any credit in the discovery.

13. What type of scientists use DNA to solve crimes?

Forensic scientists

14. What was the first animal to have its DNA sequenced?

Fruit Fly

15. Why are bacteria the fastest mutating organisms on the planet?

They only have 1 strand of DNA

Click on the quiz icon and play the review game. Write your score below.

Click on the Challenge icon and play the review game. Write your score below.

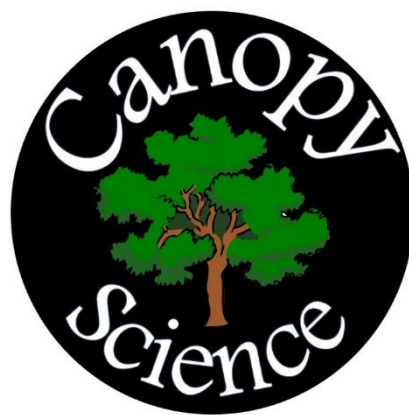
Thanks for downloading this activity!

Don't forget to leave feedback!

Teacher Note: If using the Game Up feature, students will see a list of games to play. If they click the picture of the game, it may give them an error message. To play the game they should click on the title/name of the game.

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