

DNA / RNA WEBQUEST

Things you may not know about DNA Video <http://learn.genetics.utah.edu/content/basics/dnathings>

1. Do genes specify skin color?
2. How do genes interact with the environment?
3. Do curly hair and straight hair result from having different genes?
4. If a couple's first child has a $\frac{1}{4}$ chance of inheriting a rare disease, what probability will the 3rd child have?
5. Where do we get our DNA?
6. Why are mutations necessary for evolution?
7. How do heart and brain cells differ?

What are DNA & GENES <http://learn.genetics.utah.edu/content/basics/dna>

List 2 facts that you learned.

What is a Mutation <http://learn.genetics.utah.edu/content/basics/mutation/>

List 2 facts that you learned.

Animation Quizzes (8)

1. View the animation video.
4. Scroll to the quiz under the video.
5. Write the questions and your answers.
6. Check your answers.
7. Explain why any incorrect answers are wrong and document the correct answer.

Hershey & Chase Experiment

http://highered.mheducation.com/sites/9834092339/student_view0/chapter14/hershey_and_chase_experiment.html

DNA Structure

http://highered.mheducation.com/sites/9834092339/student_view0/chapter14/dna_structure.html

DNA Replication

http://highered.mheducation.com/sites/9834092339/student_view0/chapter14/structural_basis_of_dna_replication.html

Transcription

http://highered.mheducation.com/sites/9834092339/student_view0/chapter15/transcription.html

Stages of transcription

http://highered.mheducation.com/sites/9834092339/student_view0/chapter15/stages_of_transcription.html

Translation

http://highered.mheducation.com/sites/9834092339/student_view0/chapter15/how_translation_works.html

Addition & Deletion

http://highered.mheducation.com/sites/9834092339/student_view0/chapter15/addition_and_deletion_mutations.html

Changes in Chromosome Structure

http://highered.mheducation.com/sites/9834092339/student_view0/chapter15/changes_in_chromosome_structure.html

Basic Genetics Interactives

Build a DNA molecule (STOP after 2 MINUTES!) <http://learn.genetics.utah.edu/content/basics/builddna/>

1. Sketch your DNA molecule

Transcribe and Translate a Gene <http://learn.genetics.utah.edu/content/basics/transcribe/>

2. Sketch your gene

Mutations <http://learn.genetics.utah.edu/content/basics/outcomes/>

3. Place each mutation under the correct column

Variation Disease Both

Genetic Code

1. Research to answer the Guiding Question: "Why is the Genetic code considered to be universal?"
2. Provide 2 examples that support your answer and then justify why you chose these examples.