

Week of: 11/9-11/13

Teacher: Anderson

Subject: Biology

Monday

TLW: Objective: Explain replication, transcription, and translation as it relates to the structure and function of DNA and RNA. TEKS: 6B

Activities:

Warm-up: Similarities and Differences between DNA and RNA-Students complete a graphic organizer that compares and contrasts DNA and RNA.
-Protein Synthesis Simulation- Students complete this activity if they did not finish last week.

Elaborate: Transcription and Translation Worksheet- Students will be introduced to codon charts and will learn how to read them and understand how codons code for certain amino acids.

Evaluate: Exit Ticket will be to explain the 3 processes: replication, transcription, and translation. Include enzymes for each process and the final result of each.

Materials: Similarities/Differences Worksheet, Transcription and Translation Handout

Follow Up/HW: DNA Test Monday, November 16th

Tuesday

TLW: Objective: Describe components and structure of DNA and illustrate how DNA carries the information for traits. TEKS: 6A

Activities:

Evaluate: DNA Beads Activity: Students make their own DNA out of beads and wire. Students will receive a template strand and will give a complementary strand to make their own DNA.

Materials: Beads, Wire

Follow Up/HW: DNA Test Monday, November 16th

Wednesday /Thursday

TLW: Objective: Identify and analyze karyotypes. Identify and illustrate how changes in DNA cause mutations and evaluate the significance of these changes. TEKS: 6F, 6C

Activities:

Engage/Explore: Karyotype given to all students. Need to determine if the karyotype is Human? Race? Disorder? Sex?

Explain: Students will utilize Power point notes to aid in the discussion of karyotypes and chromosomal mutations.

Elaborate: Students will complete a Karyotyping lab where they try to

complete a normal karyotype and another with a disorder. The karyotype needs to show chromosomes in pairs, lined up by size and shape with the X and Y chromosome at the end of the sequence. Students identify which chromosome has too many or too few chromosomes in the karyotype that is abnormal.

Evaluate: Completion of the Karyotype lab will show if students understand how to identify mutations, sex, and disorder by looking at a karyotype.

DNA Review Sheet given to students for homework.

Materials: Karyotype, Scissors, Projector

Follow Up/HW: DNA Test Monday, November 16th

Friday

TLW: Objective: Describe components and structure of DNA and illustrate how DNA carries the information for traits. TEKS: 6A Explain replication, transcription, and translation as it relates to the structure and function of DNA and RNA. TEKS: 6B Identify and analyze karyotypes. Identify and illustrate how changes in DNA cause mutations and evaluate the significance of these changes.

TEKS: 6F, 6C

Activities:

DNA Review

Jeopardy-DNA, Karyotype

Materials: Review Sheet

Follow Up/HW: DNA Test Monday, November 16th