Integrated Science Biotechnology Unit Learning Portfolio

Directions (please read carefully because they are a little different)

1. Select assignments that demonstrate you have learned the science content listed.
2. To complete a learning goal:
    a. Open a WORD document (please use 12pt font and 1.5 spacing):
    b. Write out the learning goal assigned
    c. Write the assignment(s) that helped you learn it
    d. Write a paragraph that describes what you **LEARNED** (be as detailed as possible and actually tell what you learned, *not just that you learned it*)
    e. Self Assessment: Looking at the rubric on the next page, assess yourself and give yourself a score. If you don't think you meet the grade you want-reedit your paragraph.
    f. Write the score you think you earned
    g. Save the document so you can edit it if you need to redo the learning goal to show growth
    h. Print and turn in on the due date

Biotech Learning Goals
(make sure you are using these updated ones)

A. Students understand how different types of mutations can occur and can explain their outcomes.

B. Students can define biotechnology and genetic engineering and can identify how these are used in the scientific community currently.

C. Students know the structure and origin of restriction enzymes and their function in biotechnology.

D. Students can explain the steps of biotechnology's use (recombinant DNA) in living systems to develop or make useful products such as drugs, foods, and fuels.

E. Students know explain the steps of how biotechnology can be applied to the following and can produce an informed opinion about their uses:

1. creating transgenic organisms (GMOs)
2. creating clones and using therapeutic cloning
3. facilitate pregnancy (and screen for specific traits and disease)
4. solve crimes
5. stem cell research

F. Students understand gene regulation and know that the specialization of cells in multicellular organisms is usually due to different patterns of gene expression rather than to differences of the genes themselves.

G. Students know that the genetic composition of cells can be altered by incorporation of exogenous DNA into cells (transformation) to produce novel biomedical and agricultural products and can explain in regards to a laboratory procedure.

Proper set up and learning portfolio rubric for self assessment on the back

LEARNING PORTFOLIO RUBRIC

Rubric Score	Corresponding Percentage	Grade in Homeaccess	What the score means
+5	100%	10/10	In addition to a +4 performance, there are in-depth explanations and applications of information to other contexts such as the students own life.
+4	90%	9/10	In addition to a +3 performance, the students had all correct information and gave in-depth explanations, may have partial applications of information to other contexts.
+3	80%	8/10	There are no major errors regarding the information that was taught. All aspects of the goal were addressed, however some detail needs to be added/changed.
+2	70%	7/10	There are some major errors in the information that was taught.
+1	60%	6/10	There are many errors in the information that was taught. With help, there is a partial understanding of the information that was taught.
0	0%	0	Even with help, there is no understanding or skill demonstrated.
NHI	NHI	NHI (counts as a zero)	Student did not turn in a learning goal, so understanding cannot be assessed.

Written Set Up

Name
Period

Learning Goal A: Students understand how different types of mutations can occur and can explain their outcomes.

Assignments: I learned these through the following assignments: mutations notes and mutations activity

I learned that….(this is where you write your paragraph)

Self-Assessment Score: I reread my paragraph and think I would earn a…