Cell Project

As a culmination to our study of cells, you will create a 3D model of either an animal or plant cell using simple and inexpensive materials. In addition to your model you will need to complete the following requirements if going for an "A" grade, a "B" Grade, or a "C" grade.

GOING FOR AN "A" GRADE:

1) **3D Model with Labeled Cell Parts (Choose One)**
    - Animal Cell— *Cell Membrane, Nuclear Membrane, DNA, Nucleus, Ribosomes, Mitochondria, Golgi Complex, Lysosomes, Endoplasmic Reticulum, Cytoplasm*
    - Plant Cell— *Cell Membrane, Nuclear Membrane, DNA, Nucleus, Ribosomes, Mitochondria, Golgi Complex, Lysosomes, Endoplasmic Reticulum, Cytoplasm, Vacuoles, Chloroplasts*
2) **Report w/ Cover & Sleeves—**USING ONLY YOUR TEXT BOOK prepare a report that:
    A. Describes how you made your cell and what you used to make it.
    B. Explains what each of the cells organelles are and what you used to represent them.
    C. Describes the composition and functions of each organelle you placed in your cell.
3) **Oral Presentation (Include a Demonstration if Possible)—**Give an oral presentation about (1) The Cell Cycle OR (2) The Human Genome Project. Presentation must include visuals and may include a demonstration or additional props. It needs to be about 10 minutes long.
4) **500+ Word Paper on the Pros and Cons of Genetic Research**

GOING FOR A "B" GRADE:

1) **3D Model with Labeled Cell Parts**
    - Animal Cell— *Cell Membrane, Nuclear Membrane, DNA, Nucleus, Ribosomes, Mitochondria, Golgi Complex, Lysosomes, Endoplasmic Reticulum, Cytoplasm*
    - Plant Cell— *Cell Membrane, Nuclear Membrane, DNA, Nucleus, Ribosomes, Mitochondria, Golgi Complex, Lysosomes, Endoplasmic Reticulum, Cytoplasm, Vacuoles, Chloroplasts*
2) **Report w/ Cover & Sleeves—**USING ONLY YOUR TEXT BOOK prepare a report that:
    A. Describes how you made your cell and what you used to make it.
    B. Explains what each of the cells organelles are and what you used to represent them.
    C. Describes the composition and functions of each organelle you placed in your cell.
3) **500+ Word Paper on the Pros and Cons of Genetic Research**

GOING FOR A "C" GRADE:

1) **3D Model with Labeled Cell Parts**
   - Animal Cell— *Cell Membrane, Nuclear Membrane, DNA, Nucleus, Ribosomes, Mitochondria, Golgi Complex, Lysosomes, Endoplasmic Reticulum, Cytoplasm*
   - Plant Cell— *Cell Membrane, Nuclear Membrane, DNA, Nucleus, Ribosomes, Mitochondria, Golgi Complex, Lysosomes, Endoplasmic Reticulum, Cytoplasm, Vacuoles, Chloroplasts*

2) **Report w/ Cover & Sleeves—**USING ONLY YOUR TEXT BOOK prepare a report that:
   A. Describes how you made your cell and what you used to make it.
   B. Includes the definition for each of the cell organelles.

GRADING OF THE CELL MODEL:

Cell models will be judged and graded on the following:

A. Scientific accuracy: Does your model contain ALL the necessary parts and organelles? Are the relationships between the parts or organelles, if any, shown correctly?

B. Sturdiness and three-dimensionality: Is the model truly three-dimensional? Is the model sturdy enough to be moved around without parts of it falling apart? Is it freestanding?

C. Attractiveness and artistic merit: Is the model pleasing to the eye? Are textures and colors used in a pleasing manner? Does YOUR model stand out in a group?

D. Creativity and originality: Is the choice of materials original? Is there a creative use of materials? Do construction techniques show originality? Is Your model unique?

E. Neatness: Is Your model neat? Does the construction avoid a sloppy appearance or does it look like an elementary school model project?

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DUE DATE: Oct. 24th

GOING FOR AN “A”

1)	3D Cell Model	_____ 40 _____
2)	Report	_____ 30 _____
3)	Presentation	_____ 15 _____
4)	500+ Word Paper	_____ 15 _____
TOTAL (Out of 100)		_____ 100 _____

GOING FOR AN “B”

1)	3D Cell Model	_____ 40 _____
2)	Report	_____ 30 _____
4)	500+ Word Paper	_____ 15 _____
TOTAL (Out of 100)		_____ 80 _____

GOING FOR AN “C”

1)	3D Cell Model	_____ 40 _____
2)	Report	_____ 30 _____
TOTAL (Out of 100)		_____ 70 _____

Comments: