Cell Model Project

Due Date: Monday, November 4

Point Value: 45 pts

Explanation:

Your objective is to create a 3-Dimentional model of a cell.

The final product should include:

1. 3-D model of the cell.

2. Typed definitions explaining the jobs of each of the organelles in the model.

3. A Key to CLEARLY mark each of the organelles.

4. Titled as a Plant or Animal

5. Name of each person clearly marked.

Possible Formats: shoeboxes, play-doh, foam balls, beach balls, etc.

Groups: You may do this project by **YOURSELF**, OR with up to TWO partners. There will be NO class time given to work on this project, so, should you decide to work with partners, **don’t** pick someone you can’t meet with outside of school. All partners will receive the same grade regardless of complaints; so, choose wisely.

Resources: Use the information in your Organelle note packet. If you use information from another source, you MUST indicate where you got the information (standard bibliography format)

Rubric:

**Modeled Organelles**

13 pts 1 pt for each modeled organelle. Not every cell in nature has all the possible organelles. I will be looking for 13 organelles in your cell model. To earn points, each organelle must be CLEARLY marked using some type of key or label that properly identifies it and be accurately represented in the model.

(TWO BBAADD EXAMPLES: PUTTING PLANT ORGANELLES IN AN ANIMAL CELL OR PUTTING GOLGI BODIES INSIDE A NUCLEUS)

**Definitions:**

13 pts 1 pt for each correct definition. You must identify the specific job of each of the organelles used in your model. These definitions must be typed.

**Creativity:**

5 pts 3 pts = Average when compared to peers’ projects. To earn more than the 3 pts, you must do something with your project that makes it unique when compared to those submitted by your peers.

**Neatness:**

5 pts Refers to both model & written work. (-2 if definitions are not typed)

**Spelling:**

5 pts -1 pt for each misspelled word (up to 5)

**Name:**

2 pts Make sure that anyone receiving a grade for this project has their NAME marked on **each part** of the project.

**Identify model as plant or animal:**

2 pts Make sure you indicate if your model is a plant or animal cell. This is VERY IMPORTANT, because I will base your modeled organelles on this distinction.

1. **Students DO NOT need to build their projects out of expensive pieces**. One of the examples I showed them in class today was a perfect cell model project made from items you could pull out of the trash. It was a water bottle cut in half, pieces of macaroni and spaghetti, a balloon and

some straws.

2. **Baked Goods** – students CAN make their cell models from things like cakes/cookies, but a word

of caution. The point of the project is to show that the student understands the 3D nature of

the cell. Baking a cake, then decorating only the top of the cake still represents the cell as being

flat. There are ways to pull this off if the student wants to pursue them; s/he will have to be

creative.

3. **Students must list and define the organelles they use**. It is listed in the rubric, but every year

there are students who build fantastic models, but don’t define their organelles and only receive

½ credit for the project, an F.

4. If their projects are in multiple parts, **make sure their names are on EACH part**. On ‘turn in day’

this room gets filled with projects. If the group doesn’t put their names on their definition page,

and it get separated from the project, there is no way to know who it belongs to.

5. **Creativity** –Try not to ever think of anything as ‘lost points’ – it’s always ‘earned points’. Five points of the project are allotted to creativity. A score of ‘3’ means that the project was on equal level with the

average project that the other students turned in. Meaning, if your child decides to make a

foam ball and everyone else also decides to make a foam ball, and his/her foam ball looks just

like everyone else’s, then it’s a 3. Now, if they do something that makes their foam ball

stand out from the others, then more points are earned. If your child does something unique,

then they earn the 5. This is something I always explain to the classes, but the message rarely

gets passed on to home. A perfectly made project with an average creativity score still earns a

final grade of 95%.

6. **Spelling & Typing** – With a little time and preparation, students can avoid misspelling words.

Students who don’t get full credit for ‘neatness’ because they didn’t type the definitions

sometimes use the excuse “My printer doesn’t work” or “We don’t have a computer”. While

both are legit, the kids have weeks to do this – they could easily find the time to do it if they

don’t put it off until the last minute (there are computers here at school).

7. **Definitions** – All the needed definitions can be found either in the note packets. They CAN get the definitions from an outside source, but they need to cite the source to get credit. I’ve made a big deal about this in class both Today and last Friday when we learned it.

8. **Plant or Animal?** – Titling your project as a plant or animal is simple, but not doing it can

prevent them from earning lots of points. Some organelles only exist in plants or animals. If

they don’t label the model as such, they can’t get credit for any organelle that doesn’t exist in

both.

Parent Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Student Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_