

# 3D Cell Model Instructions

**Your project must have: I) a 3D MODEL and II) a KEY to the cell parts**

**I. MODEL – Make a 3 dimensional model of a cell (choose plant or animal). SHOW all parts listed (see below) and NUMBER all parts.**

- Use common materials such as Styrofoam, cardboard, wood, paper, play-dough, macaroni, dry cereal, string, buttons, pipe cleaners, beads, yarn, etc. Be creative, you don't need to spend money to make the cell model.
- Do not use JELLO, edible fruit or vegetable, or anything that will spoil or spill.
- Number all parts.
- Make sure parts and numbers are securely attached to your model.
- Cell model must be 3-D, it cannot be flat like a poster.
- Do not use pins or anything sharp.
- **PUT YOUR NAME & PERIOD ON MODEL!!**
- **Identify your cell as plant or animal using a LABEL.**

**Parts to include: NUMBER THESE PARTS ON YOUR MODEL!!**

## **PLANT CELL**

- \_\_\_ Cell membrane
- \_\_\_ Cell wall
- \_\_\_ Chloroplast
- \_\_\_ Cytoplasm
- \_\_\_ Mitochondria
- \_\_\_ Nucleus
- \_\_\_ Nuclear membrane
- \_\_\_ Golgi bodies
- \_\_\_ Endoplasmic reticulum
- \_\_\_ Nucleolus
- \_\_\_ Very Large Vacuole
- \_\_\_ Chromosomes
- \_\_\_ Ribosomes

## **ANIMAL CELL**

- \_\_\_ Cell membrane
- \_\_\_ Cytoplasm
- \_\_\_ Mitochondria
- \_\_\_ Nucleus
- \_\_\_ Nuclear membrane
- \_\_\_ Golgi bodies
- \_\_\_ Lysosome
- \_\_\_ Endoplasmic reticulum
- \_\_\_ Nucleolus
- \_\_\_ Very Small Vacuole
- \_\_\_ Chromosomes
- \_\_\_ Ribosomes
- \_\_\_ Centrioles

**II. KEY: 8 ½ X 11 paper, TYPED, 3 columns.**

- Column 1 = the **NUMBER** of each part
- Column 2 = the **NAME** of each part
- Column 3 = a **CONCISE** statement of the **FUNCTION** of each part
- **PUT YOUR NAME & PER. ON KEY!!**
- **Label your key plant or animal cell.**

## **Important Vocabulary**

**Concise = clear, complete, short description**

**Function = what the part DOES. Its purpose. (Not a description of what it looks like)**

**3D = 3 dimensional = has length, width and depth (Not flat)**

Name (PRINT) \_\_\_\_\_ Period \_\_\_\_ Due Date \_\_\_\_\_

## Grading Rubric - 3D Cell Model

Your cell model must include all requirements shown below. Use the **STUDENT** column below as a checklist to be sure you include all parts of the rubric. **LEAVE THE TEACHER COLUMN BLANK FOR GRADING PURPOSES.** Turn in this sheet with your project for 2 pts. extra credit.

### I. MODEL

TEACHER STUDENT

_____	_____	All cell parts clearly& accurately represented on the model 20 pts.
_____	_____	Cell parts numbered 5 pts.
_____	_____	Model parts and numbers securely attached 5 pts.
_____	_____	Professional appearance, neatness, contrasting colors 5 pts.

### II. KEY

TEACHER STUDENT

_____	_____	Numbers and accurate functions given for all parts 10 pts.
_____	_____	Spelling, grammar, punctuation 5 pts.
_____	_____	Extra credit for including this sheet 2 pts.
_____		<b>Total Points</b>