

The Beauty of a Cell

Purpose: To exhibit a piece of artwork that showcases the beauty and complexity of a cell. Your work will be displayed, so it should to the best of your ability.

Instructions:

1. Research a specialized type of cell. The cell can be from any organism.
2. Sketch a picture of a cell
3. Transfer the sketch to poster board
4. Color using water color pencils
5. Research and collect the required information about the selected cell, and paste it into the project content template

Every student is capable of *following directions* exactly and *neatness*. *Patience* and *proper planning* will help meet expectations. Be sure to include all content requirements, both text and drawing, in your project to achieve mastery.



Rough Draft

Use the 5x7 newsprint (paper that is used to make newspapers) to draw the cell, and a background if desired. Draw large enough to fill the page. There will be no lettering or diagraming on this illustration. When the teacher approves the drawing, move to the final project.

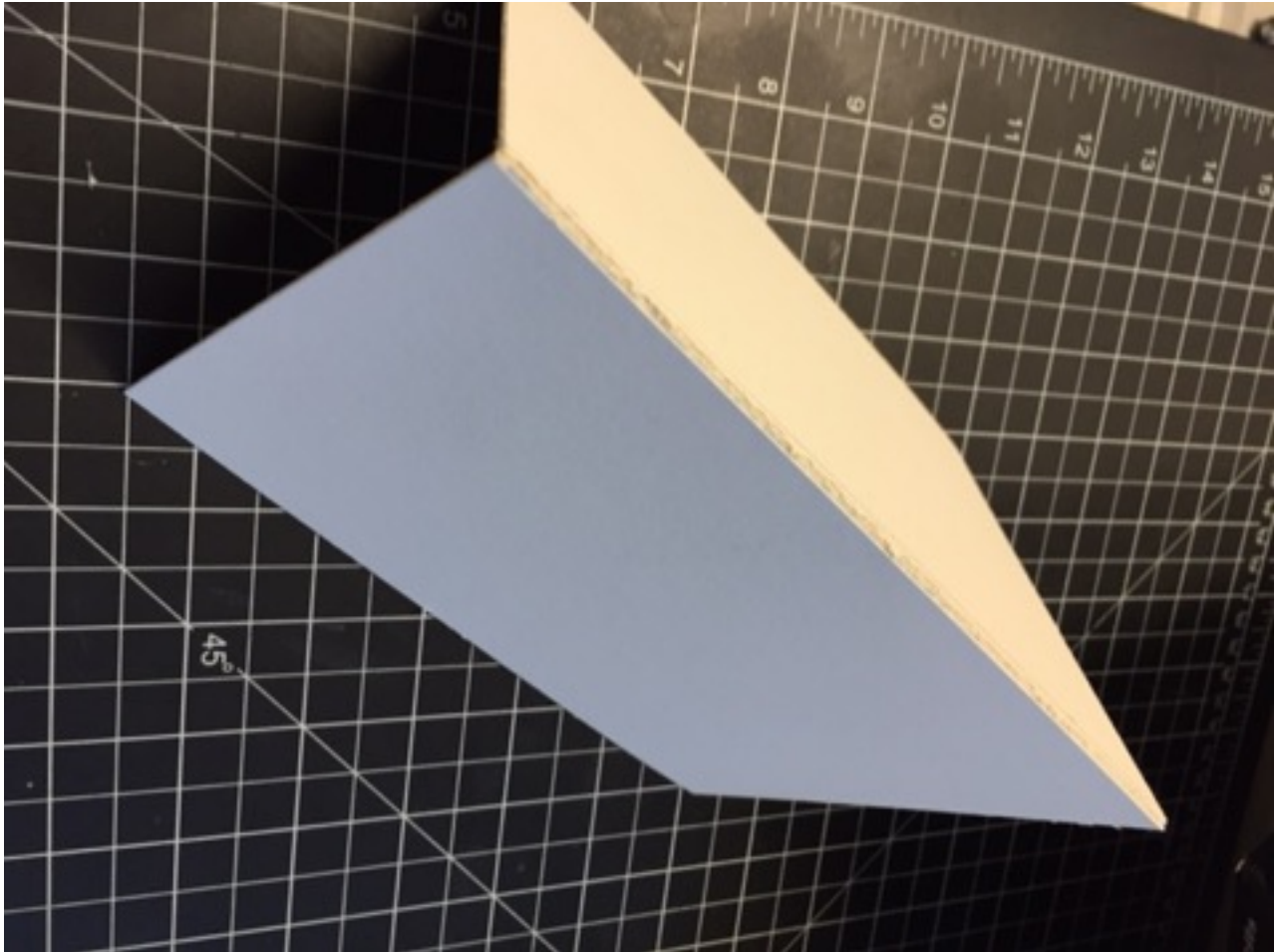
Final Project

Folding

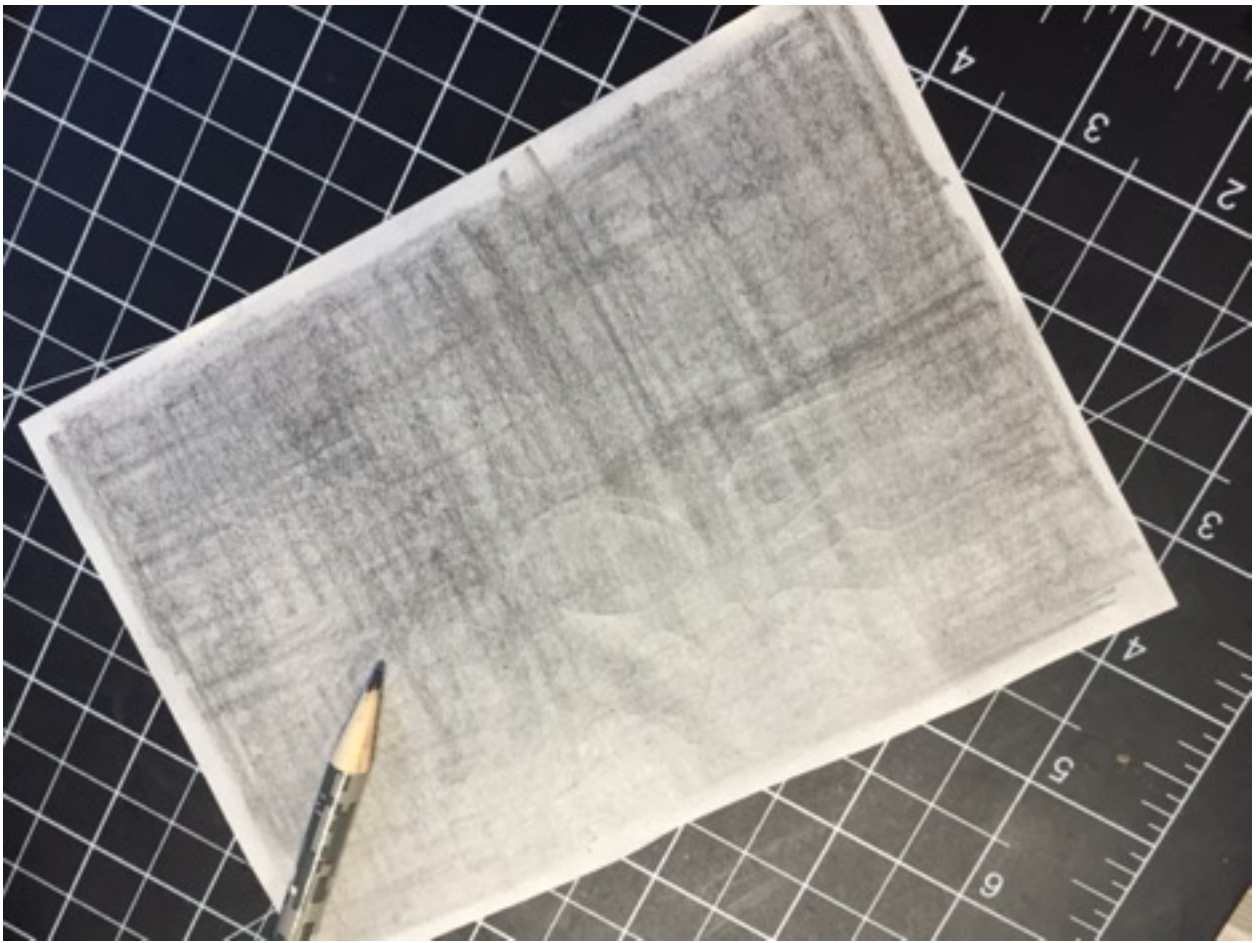
Your cardboard is 10"x7". You will be folding it in half making the dimensions then 5x7.



On the front (good) side of the cardboard, measure in toward the center at 5" on the 10" side. Measure in two places, marking it with dots, and then using a RULER to draw the fold line. Then place the ruler edge on the fold line and use an exacto knife to "score" the line- meaning to cut only halfway through the cardboard. Do NOT cut all the way through.



Then gently fold on the line, with the good sides out, and you should get a perfect crease.



Tracing

To trace your drawing from the newsprint onto the good cardboard:

- use your pencil edge to shade in the entire back of the newsprint drawing.
- use a paper towel to wipe off excess graphite. This will keep your paper cleaner.
- LIGHTLY tape your drawing onto the board, adjusting placement so that it fits on the board exactly where you want it. This keeps the drawing from moving
- trace all of the lines you wish to transfer with a pencil or a pen. This method works like carbon paper to transfer work.
- pull off tape and rough raft to reveal drawing that is now transferred onto the cardboard. The pencil lines will be light, but do not darken them.



Color

Add color using the watercolor colored pencils provided. Color neatly and slowly, using small pencil strokes so that the effect is smooth. Practice on a scrap of paper to see how the pencils work.

* blend two colors together in the center of a space, or to shade a space. For example, you could have green fade into blue, or you could use light blue on a space and darken the bottom edge with navy blue to create a 3D or shadow effect.

* color two colors over the top of each other to create a custom color. For example, color yellow first and then go over that same space with green to create yellow green. Start with the lightest color first.

* be sure to color to the edges of the space, and also color the back ground. you can break up the background with a simple line or shape, or "frame," if you want.

* color everything in first. paint effect and/or outlines come later if desired.



Outlines

You *may* want to add outlines, tiny details, or texture with a Sharpie pen. This is permanent ink. It is an option that you may or may not choose to use. You can also wait to decide after you create the paint effect described below.

3D element

You must choose to make some at least one part stand out using a cardboard piece. The small cells and nuclei above are cut out individually and glued on to add interest. Note the edge of the loose piece in the illustration on the left. You can use the wide tip sharpie to “color” the edge black, so that the edge of the cardboard is covered. Any 3D pieces should be cut out, painted, and outlined before glueing them on.

Paint effect

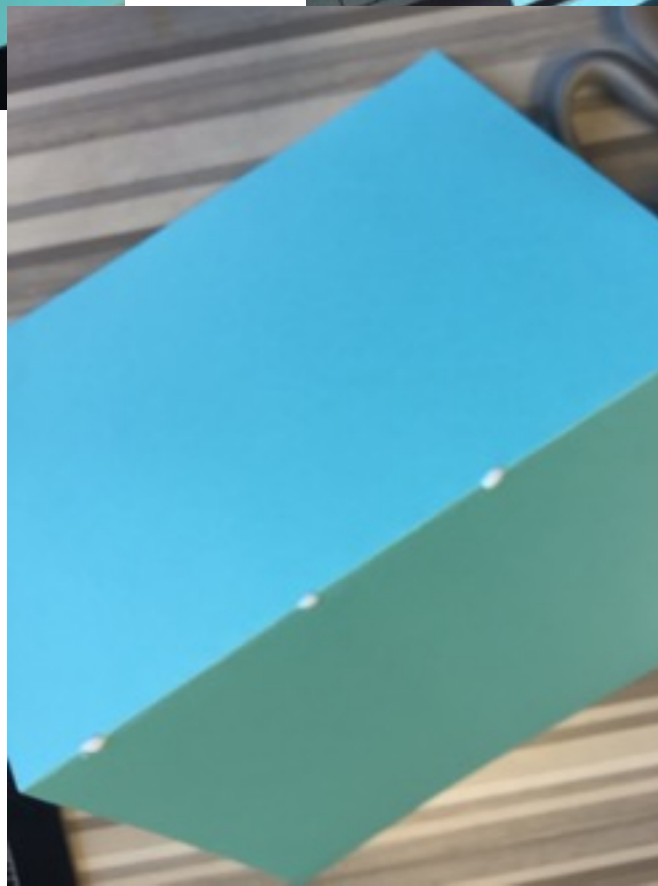
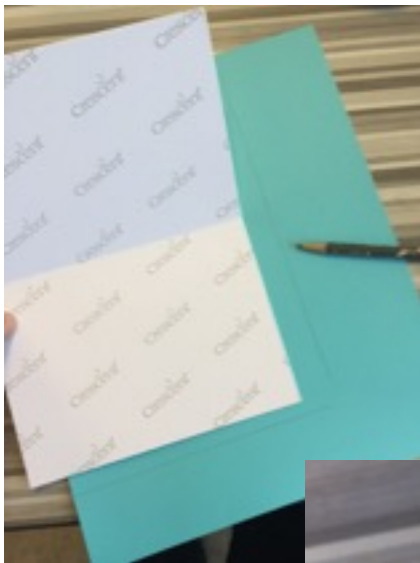
Use a tiny brush with a little water to blend colors so they become watercolors. If you have outlined with Sharpie pen already, it will not be affected by the water. Keep dipping your brush in water to keep in clean so you don't contaminate colors. You can use a medium brush for larger areas but don't flood the paper with water, or it will get messy, warp the cardboard, or actually disintegrate the cardboard. If you need more color after the water is applied, wait until the water is completely dry. Otherwise you risk the above disastrous results.

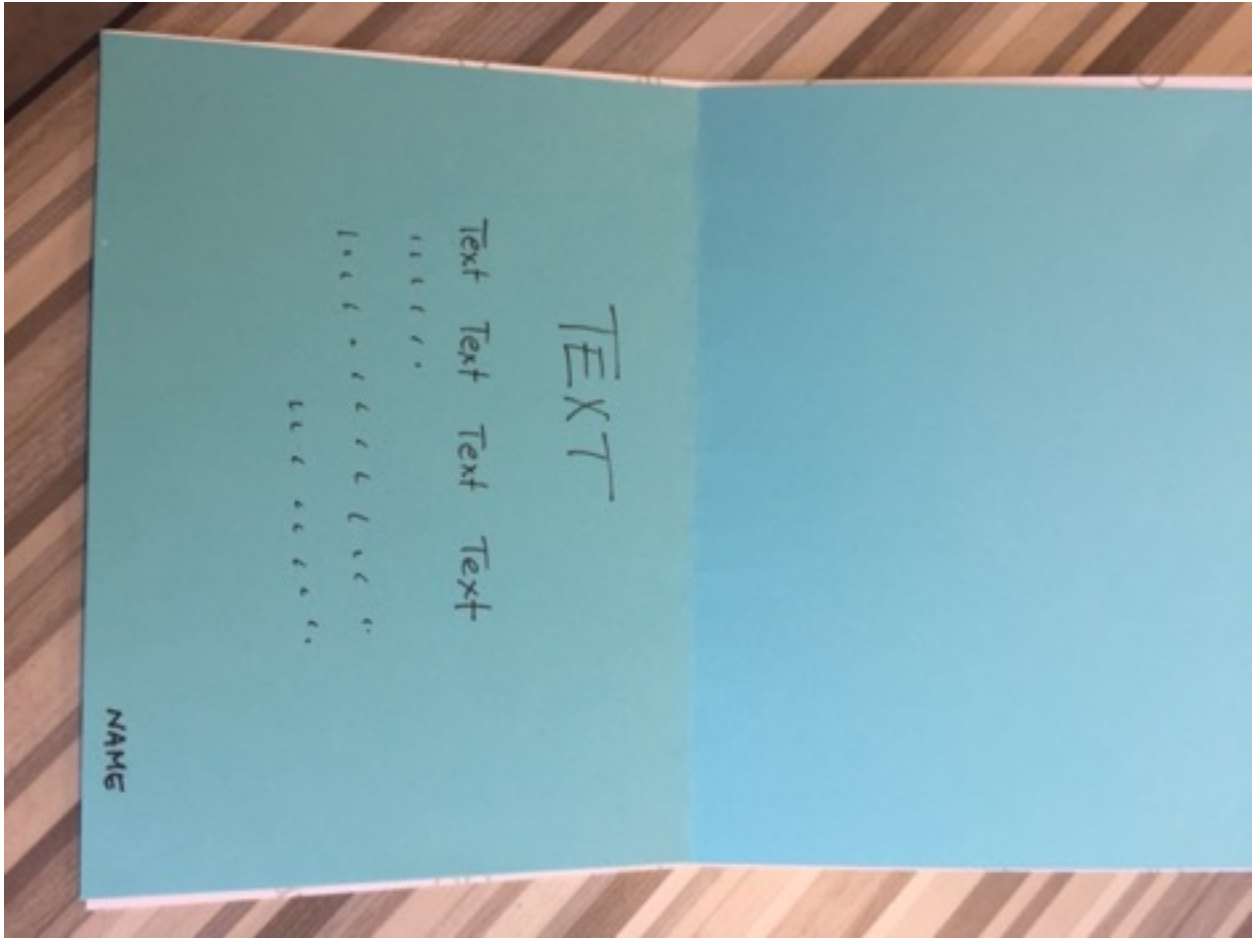
Inside Information/Text

This should be typed onto the project template for printing. Consider font styles that are easily read, but may apply creatively to you particular cell. Use size variation, underline, italics, and bold where appropriate to relay the information. Be sure to include all of the information required. Use creative and interesting ways to communicate you ideas if possible. In a very tiny font, put your name in the bottom right corner. Use spell check and have teacher approval prior to printing.

This text will be printed black on colored computer paper. You will need to start text more than halfway through the page so that it will fit right inside your project.

Attaching text sheet to project





Attaching text sheet to project

Fold paper in half with text facing inside. Use a couple of SMALL DOTS of white glue to the outside of fold and play it inside the cardboard. Align the folds. Fold shut and see if text page overhangs the cardboard. If it does, take it off and trim it a little. Let that dry for a few minutes. Then put ONE SMALL DROP of glue in each corner (apply glue so that it will NOT ooze out of the edges and make a mess) of the text page and shut the project so that it can adjust to dry.

Content Requirements for Mastery

You will use this chart to gather information. Eventually, you will include this information on the project content template that you will glue to the inside of your artwork as pictured above. All content must be included to earn mastery.

Characteristic	Response	Source
Cell Type		
Is it Prokaryotic or Eukaryotic cell?		
What kingdom of living things does it belong to?		
Describe its structure (include special characteristics)		
What is the function of the cell?		
Name and describe 5 organelles (include special organelles)		
Diseases in which it is associated OR other unique information about this type of cell		

Project Execution Requirements for Mastery

Artwork must

- Feature a specialized cell or small collection of cells
- Exhibit neatness, detail, and visual interest
- Fill required space on the cardboard
- Include at least one 3D element

Annnnnnd....you are done!