Jason Schell
Lower Secondary
Design Journal Examples

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SAFETY FIRST!

While in the workshop area, your safety and the safety of others is the priority. Many of the tools we use are dangerous.

Remember:

- **Make sure an adult is present.**
- **No playing around.**
- **Be alert and focused.**
- **Wear safety glasses.**
- **Wear an apron.**
- **Tie your hair back.**
- **No loose clothing or jewellery.**
- **Wear gloves if necessary.**
- **Clean up after yourself.**

Your Design Journal

Presentation matters!

If your work is not presented well, it will probably not be graded well. But what does good presentation look like?

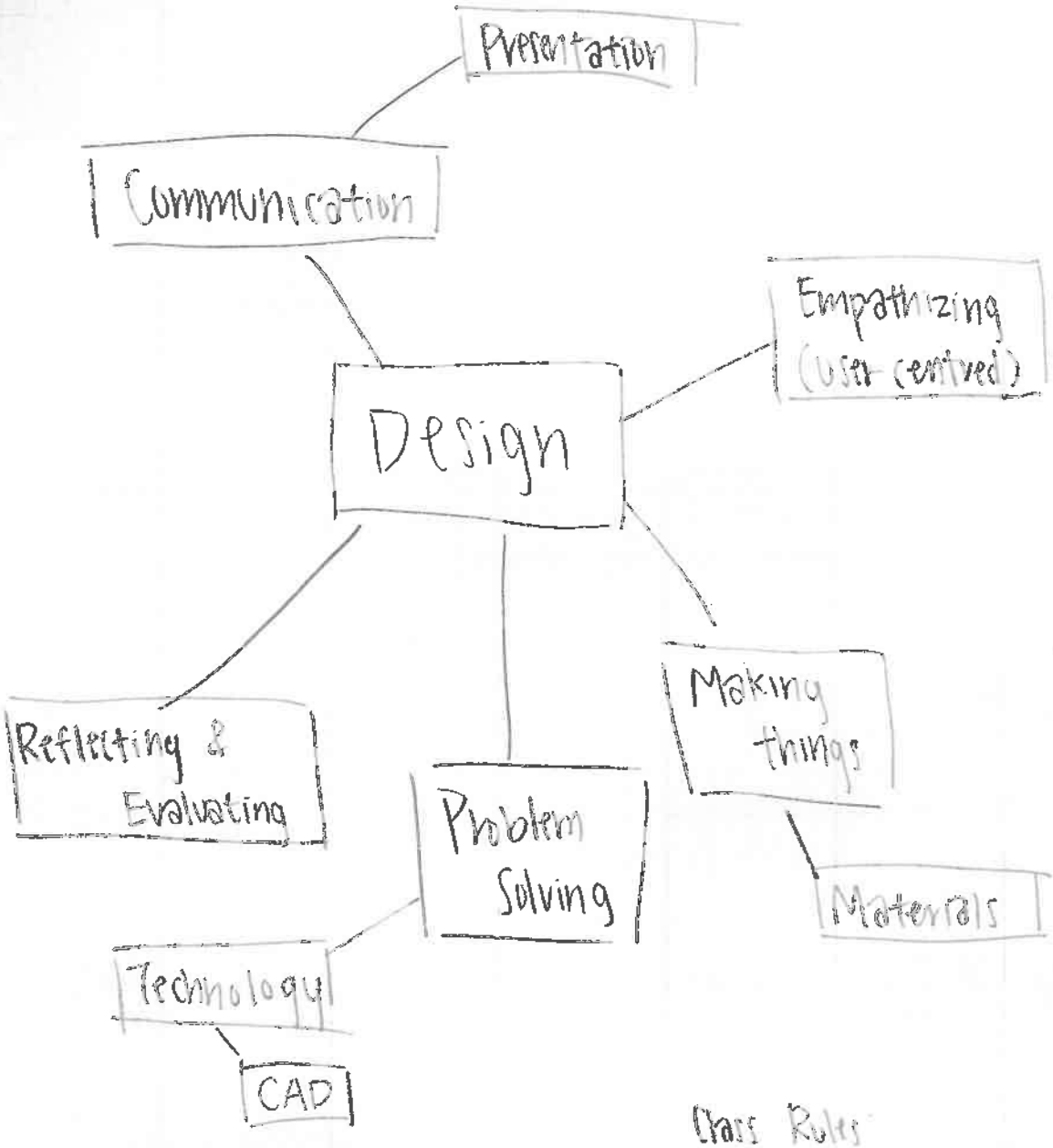
- You design journal is in chronological order.
- Your presentation is neat. The writing is legible, the drawings are clean, the papers are neatly cared for.
- Pages are in the correct size sleeve (A4 or A3) and are presented both front and back with nothing hiding in between pages.
- Design units are clearly presented together with an inquiry/analysis, development of ideas, creation of a solution, and an evaluation at the end.
- No pages are missing.
- Examples of A* work are on Managebac in our class files for reference. Mr. Schell has a teacher journal with examples too if you want to see a physical version.

5 BIG Rules

1. Work only on classwork in class (design, creative technology, and/or art). Work from the start to the end of class.
2. Choose kindness! Always be kind to your teacher and classmates.
3. Do no talk or call out while the teacher is teaching. Talk quietly with your classmates when working on projects.
4. No rambunctious behaviour.
5. Clean up after yourself. Keep an organized journal.

Design and Technology Lower Secondary Rubric (Based on the MYP Design Cycle)

Criterion A: Inquiring & Analysing. *Designers must explain and justify the need for their project. This is also when designers research, explore existing products, produce an initial sketch and create a design brief, which identifies what materials are needed and what will actually be designed.*	Criterion B: Developing Ideas *Designers make design specifications, determine how many materials are required, estimate the time needed and go over details such as color and scale. Additionally, this is when the rudimentary sketch from the previous stage becomes a blueprint with precise measurements.*	Criterion C: Creating a Solution *Designers use technical skills to physically follow the plan to make the solution. Designers shouldn't feel handcuffed by their design and should be open to thinking on the spot. Initial testing occurs during this stage and if obstacles are encountered, changes can be made to optimize and improve the original plan.*	Criterion D: Evaluation *Designers employ different testing methods and the success of the solution is judged and any improvements to make the solution are identified. From here, the different stages can be repeated to further develop or advance the solution.*
A* i. explains and justifies the need for a solution to a problem ii. constructs a research plan, which states and prioritizes the primary and secondary research needed to develop a solution to the problem independently iii. analyses a group of similar products that inspire a solution to the problem iv. develops a design brief, which presents.	A* i. develops a design specification which outlines the success criteria for the design of a solution based on the data collected ii. presents a range of feasible design ideas, using an appropriate medium(s) and annotation, which can be correctly interpreted by others iii. presents the chosen design and outlines the reasons for its selection with reference to the design specification iv. develops accurate planning drawings/diagrams and outlines requirements for the creation of the chosen solution.	A* i. constructs a logical plan, which outlines the efficient use of time and resources, sufficient for peers to be able to follow to create the solution ii. demonstrates excellent technical skills when making the solution iii. follows the plan to create the solution, which functions as intended and is presented appropriately iv. explains changes made to the chosen design and plan when making the solution.	A* i. describes detailed and relevant testing methods, which generate accurate data, to measure the success of the solution ii. explains the success of the solution against the design specification based on authentic product testing iii. describes how the solution could be improved iv. describes the impact of the solution on the client/target audience.
A i. explains the need for a solution to a problem ii. constructs a research plan, which states and prioritizes the primary and secondary research needed to develop a solution to the problem, with some guidance iii. describes a group of similar products that inspire a solution to the problem iv. develops a design brief, which outlines the findings of relevant research.	A i. develops design specifications, which identify the success criteria for the design of a solution ii. presents a range of feasible design ideas, using an appropriate medium(s) and explains key features, which can be interpreted by others iii. presents the chosen design and outlines the main reasons for its selection with reference to the design specification iv. develops accurate planning drawings/diagrams and lists requirements for the creation of the chosen solution.	A i. constructs a plan, which considers time and resources, sufficient for peers to be able to follow to create the solution ii. demonstrates competent technical skills when making the solution iii. creates the solution, which functions as intended and is presented appropriately iv. outlines changes made to the chosen design and plan when making the solution.	A i. describes relevant testing methods, which generate data, to measure the success of the solution ii. describes the success of the solution against the design specification based on relevant product testing iii. outlines how the solution could be improved iv. describes the impact of the solution on the client/target audience, with guidance.
B i. outlines the need for a solution to a problem ii. states the research needed to develop a solution to the problem, with some guidance iii. outlines one existing product that inspires a solution to the problem iv. develops a basic design brief, which outlines some of the findings of relevant research.	B i. constructs a list of the success criteria for the design of a solution ii. presents a few feasible design ideas, using an appropriate medium(s) or explains key features, which can be interpreted by others iii. outlines the main reasons for choosing the design with reference to the design specification iv. creates planning drawings/diagrams or lists requirements for the chosen solution.	B i. outlines each step in a plan that contains some details, resulting in peers having difficulty following the plan to create the solution ii. demonstrates satisfactory technical skills when making the solution iii. creates the solution, which partially functions and is adequately presented iv. outlines changes made to the chosen design or plan when making the solution.	B i. describes a relevant testing method, which generates data, to measure the success of the solution ii. outlines the success of the solution against the design specification based on relevant product testing iii. lists the ways in which the solution could be improved iv. outlines the impact of the solution on the client/target audience.
C-D i. states the need for a solution to a problem ii. states some of the main findings of relevant research.	C-D i. lists a few basic success criteria for the design of a solution ii. presents one design idea, which can be interpreted by others iii. creates incomplete planning drawings/diagrams.	C-D i. demonstrates minimal technical skills when making the solution ii. creates the solution, which functions poorly and is presented in an incomplete form.	C-D i. describes a testing method, which is used to measure the success of the solution ii. states the success of the solution.



Criteria Areas
- Inquiring & Analysing
- Developing Ideas
- Creating A Solution
- Evaluating

Class Rules
- Work only on design in design class
- Choose kindness
- Come on time, dont leave early
- Be attentive, dont call out. No rambunctious behaviour
- Clean up after yourself

Typography: The study of text & its visual appearance
Font: A specific typeset of letters (and punctuations)

Four font family
serif - Fonts with serifs. e.g. Times New Roman, Bookman Old Style, American Typewriter.
Best for books & newspaper.

Sans serif: minimal fonts without serifs. eg Calibri, helvetica, open sans.
Best for email & texts.

display: Thick, bold fonts e.g Impact, Cooper, Broadway
Best for billboards, logos & warnings

Script - Fonts that mimic handwriting eg Brush Script, Zapfino, Gigi.
Best for invitations, menus, certificates.

Headline: The largest, most important words in a design
Subheading: The second most important words in the design
Copy: Area of small writing
Serifs: The little 'arms' on letters that enhance readability
Stroke weight: The thickness and thinness of letters
Kerning: L e t t e r s p a c i n g.
Tracking: Word Spacing
Leading: Line spacing

Inquiring:
Write answers to the following questions in your journal. What is a font? What are the major font categories and what are the pros and cons of each one? What are 3 examples of each style? What different components make up a letter? Where does the font "Times New Roman" (one of the most reproduced fonts in history) originate from?

Developing Ideas:
You will be designing 3 original fonts for your name (minimum of 7 original letters for each one) using drawing materials. Make sure that each font falls specifically into one of the major font categories. Make sure that the drawings are clean, refined, and orderly, and that they are consistent in baseline, x-height, ascender, and descender.

Create:
Create your fonts in Adobe Illustrator using paths. Make sure that the drawings are clean, refined, and orderly, and that they are consistent in baseline, x-height, ascender, and descender. Save them as a pdf, print them and put them in your journal.

Evaluate:
Rate your font on a scale of 1-5 on how well it scores in the following categories: x-height, cap height, baseline, stroke weight, and kerning.

What is the most creative aspect of your font? What is the name of your type face? Why? Which families does your font fit into? Why? What were the most difficult aspects of using paths and Illustrator to complete your font project? How was that different from when we drew our fonts? Imagine a friend is going to open a new restaurant and needs advice for the typography of his outdoor sign and menu. What advice would you give them? What would you improve about your font?

OLIVIA H

Olivia Hong

Olivia Hong

Olivia Hong

Emma Chau Script

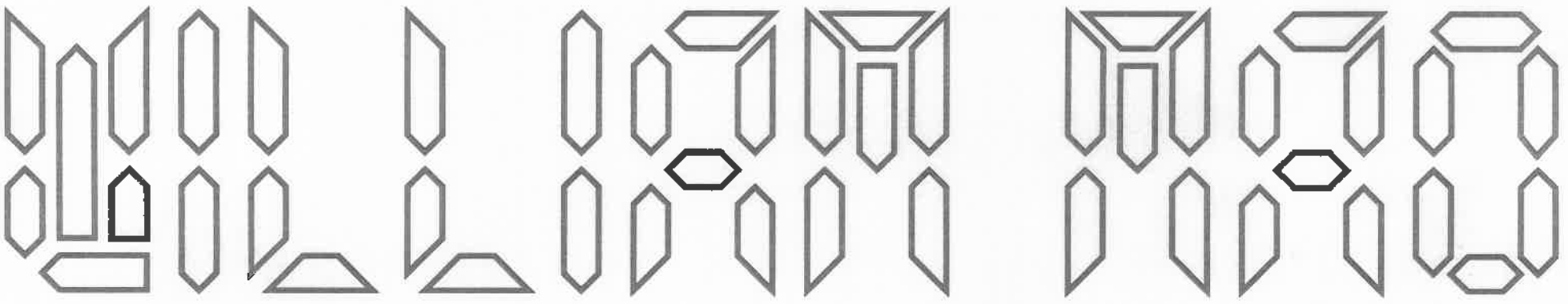
Emma Chau serif

EMMA CHAU Display

EMMA KWAI

EMMA K!

WILLIAM MAO



WILLIAM MAO

Typography Evaluation

x-height: 5 stroke weight: 4
cap height: 5 Kerning: 4
baseline: 5

Personally, I believe that the most creative aspect of my fonts created on adobe illustrator is that my fonts are really neat and has serifs. My a's are unique and all of my fonts follow the rules of typography. The name of my type face is sport serif because I feel like this font normally appear on sports shirt and hoodies and it is a serif font. It fits into the serif family because of the 'little arms' that enhance readability of the font. Some challenges I faced were writing script font and drawing curves in adobe illustrator. As shown, I have attempted to write my name in script font, however, it came out a little sketchy. Also, as I was drawing my script font, it was difficult to get the angle needed with certain tools. It was really different from when we drew the fonts because I was able to control my lines and curves really easily when I drew it but I met many difficulties while drawing lines and curves in adobe illustrator.

If my friend was opening a new resturant, I would recommend them to use serif or display font. This is because display font logos are easy to read and identify. Furthermore, for the menu, I would recommend script font if it was a fancy resturant and serif or sans serif font for a normal resturant ↑ which would help build atmosphere

I believe that I should've improved my script font that I attempted to draw in adobe illustrator.

Rate:

- I give myself a 3 out of 5 for my font. My letters stayed on the base line, but the x-height would need improvement, and I would need to work on the cap height a little more too.
- x height: 4
- cap height: 3
- Base line : 5
- Stroke weight: 3
- Kerning: 3

Most creative aspect of my font:

- Thick letters, and round-ish edges make it unique and it stands out.

Which families does my font fit into?

- Display, because the font I did has thick letters, and dark colours that stand out. You can also see it from far away.

What were the most difficult aspects of using paths and Illustrator?

- I found it difficult to make circles and ovals at first, and had a hard time controlling the mouse. I also can't get the cap height and base line when I first started.

How was that different from when we drew our fonts?

- When we drew our fonts, we can have things under control: we can use pencils to control the shape we wanted, and erasers to erase. But on Illustrator, the erasers sometimes don't work, and making circles became a little complicated.

Imagine a friend is going to open a new restaurant: what advice would you give them?

- Don't use script fonts, because its hard to read. Use some light colours to make it stand out, and make the letters thicker.

Improvement?

- Make the letter spacing more wide.

Typography Quiz

Name and Class:

Put each term in the correct place on the Typography diagram.
Baseline | X-height | Cap Height | Ascenders | Descenders

Match the vocabulary with the correct definition.

2	Font	1: Word spacing.
6	Stroke Weight	2: A specific typeset of letters.
3	Headline	3: The largest most important words in a design.
9	Subheading	4: Line spacing
7	Copy	5: The little "arms" that enhance readibility.
5	Serif	6: The thickness and thinness of letters.
8	Kerning	7: Areas of small writing.
1	Tracking	8: Letter spacing.
4	Leading	9: The second most important words in a design.
10	Baseline	10: The invisible line text sits upon.

Names the four font families and write an appropriate use for each one.

Serif : Books

Sans Serif: Email

Display : Bill Boards

Script : Invitations

Talavera

serif

INQUIRY:

WHAT ARE TALAVERA TILES?

Talavera tiles is a type of ceramic tile that is famous for it's detailed designs and vivid colors. It's a significant culture of Mexican for centuries, and it is still popular now to decorate Homes and buildings.

WHERE DO THEY COME FROM?

The tile was came from Talavera de la Reina, Spain, but mainly produced around Puebla, Mexico.

WHAT DO THEY LOOK LIKE?

There are all kinds of different designs, they are mainly plain white or cream with just a thin band of color around the edges or a circle of color in the center of the tile. It is deeply ingrained in Mexican design and gives you that warm, classic Mexican aesthetic.

IN WHAT COUNTRIES ARE THEY POPULAR?

It was shipped all around the world, mainly Colombia Venezuela Guatemala The Dominican Republic Cuba, Spain, USA, and Mexico

Talavera Tile Furniture: Mr. Schell

A furniture company is bringing the vibrant colors of Latin America to China. You will need to create a small rustic table using "Talavera" tiles. This is a prototype for the furniture line.

Inquiring/Analyzing:
What is a prototype? What are Talavera tiles? Where do they come from? What do they look like? In what countries are they popular? What is craftsmanship? What are some of the qualities of a good piece of wooden furniture? What is isometric drawing? ? Draw and original design for a Talavera tile in your design journal.

What are five of the most common wood joints?
What types of wood are used to make furniture? What is the advantage and disadvantage of each one?
What are the major tools we will use for this project and what are they used for?
What safety precautions does someone need to take while in the workshop area?

Developing Ideas:
You will construct small table with 4 Talavera tiles in the center. The square tiles are 9.8cm each and it will be made of wood that is 2x4cm. Render a detailed isometric drawing of the table. List all the pieces of wood required to make it, include sizes and measurements.

Create a Solution:
Create the table using 2x4cm pieces of wood. You will need eight 21.8cm pieces, four 30cm pieces, and one 19.8cm piece. Follow the PowerPoint to help you with construction. Don't forget to sand your edges smooth! You will also need to stain your table black, brown, or white (your choose).

Evaluation

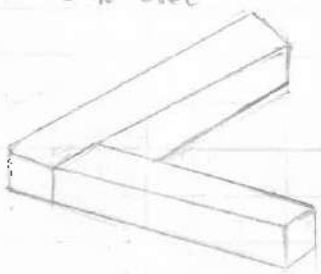
1. Look at the craftsmanship of the table. What are three things that could be improved? What are some problems you overcame during the creation of your table?
2. Is the table strong? Can it hold 30 kg? What was done to ensure that the table won't break when you place heavy things on it?
3. What are some other objects you could make with the same materials?
4. Choose kindness! Will you give your table to someone special? If so, who will you give it to? Describe later how they reacted to your gift.

Wood joints

Basic Butt:

A butt joint is when you connected two squared-off pieces of wood, whether that be face to face, edge to edge, or at a corner. Additionally, you can use either glue, nails, screws or dowels to secure your butt joint.

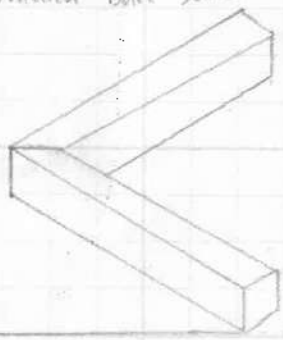
Basic Butt



Mitered Butt Joint:

Mite cuts are quite simply an angle cut. Another way of looking at it is that a mite joint is a type of butt joint that connects the angled ends of two pieces. A classic example of this would be a picture frame, each with four butt joints in the corners which are cut to a 45° angle. There are two distinct advantages to using a mite joint as opposed to a butt-corner joint: 1) No end grain shows (for aesthetic benefits), 2) Bigger surface area for glueing (for additional stability).

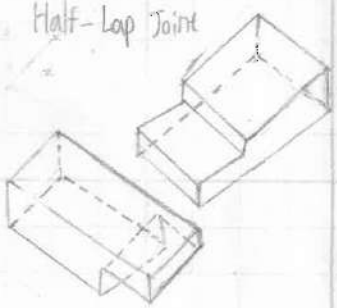
Mitered Butt Joint



Half-Lap Joint:

A lap joint is formed by joining two pieces that have had recesses cut into them: One recess in the top of the surface of the first piece, the other recess in the lower surface of the second piece. When removing the waste material from the recess, it is most typically half the thickness of the original stock. This means that when the lap joint is connected, the top and bottom of the joint are are flush with one another.

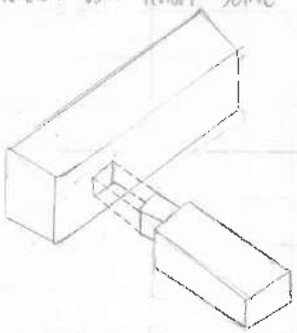
Half-Lap Joint



Mortise and Tenon Joint:

Two parts to this joint. A mortise is a hole or slot into which the tenon is inserted. Typically, mortise and tenon are straight in shape, though rounded tenons and mortises can be applied as well. While this type of joint is much harder to shape than the other simpler joints, the result is a great deal more structural rigidity.

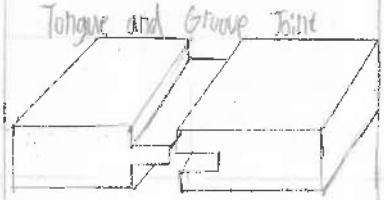
Mortise and Tenon Joint



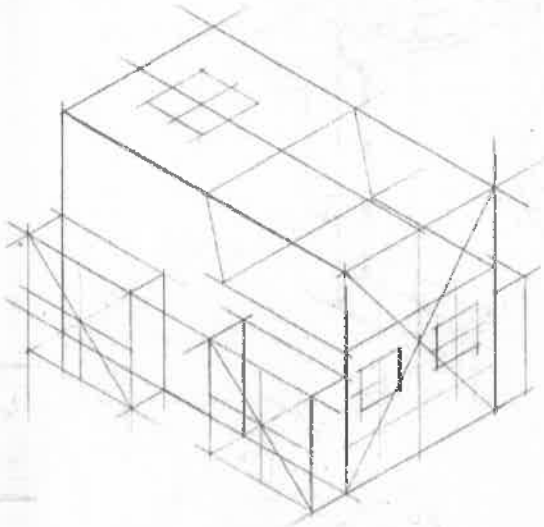
Tongue and Groove Joint:

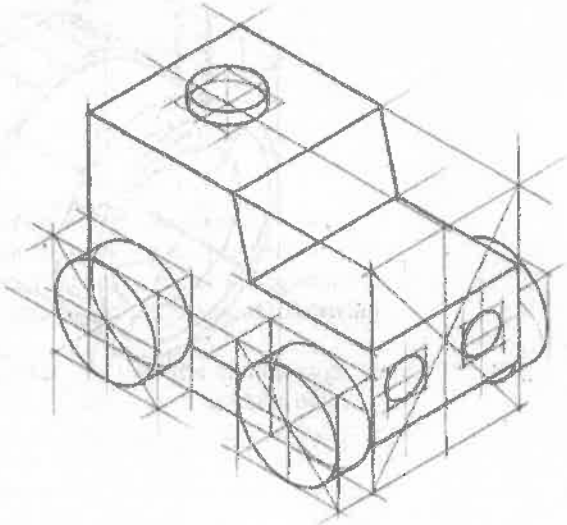
These joints use a long insert (the tongue) and long hole (the groove). They are common in flooring.

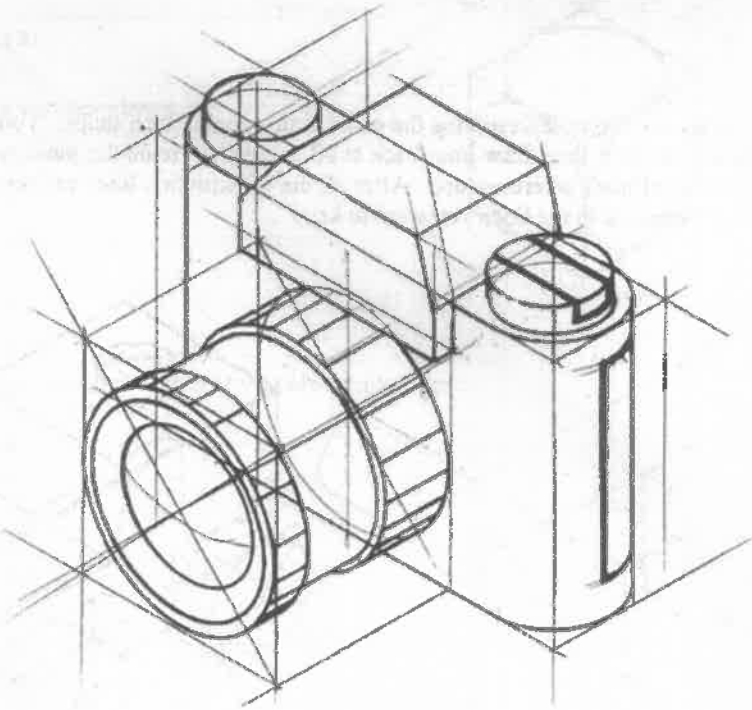
Tongue and Groove Joint



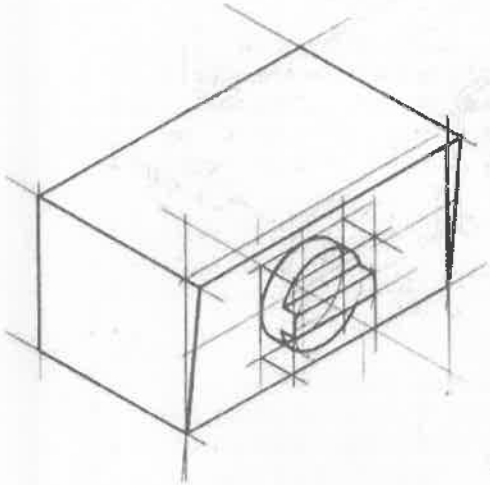
Example: First lay out boxes representing the outer dimension of each shape. You can draw a profile on one face, then draw lines back at 30 degrees to create the same profile on the back. Create ellipses where needed. After all the construction lines and rough sketching is complete, ink in the lines you want to keep.

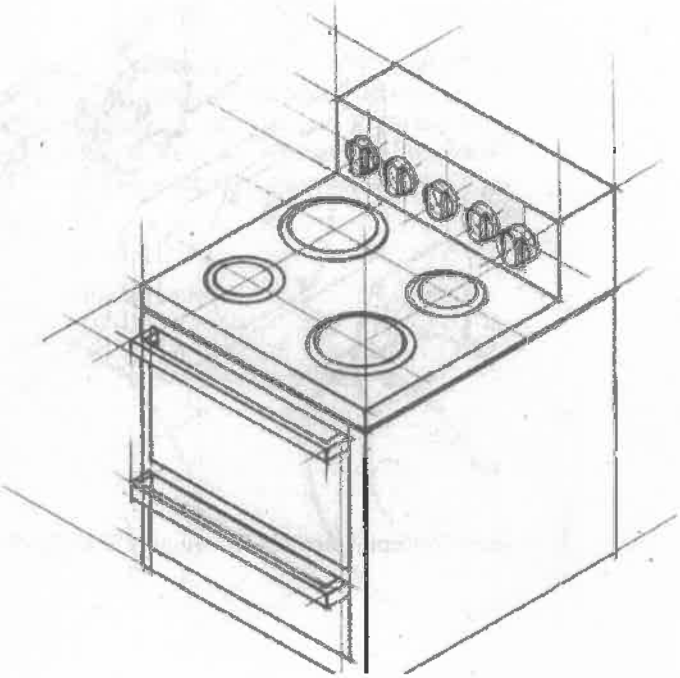


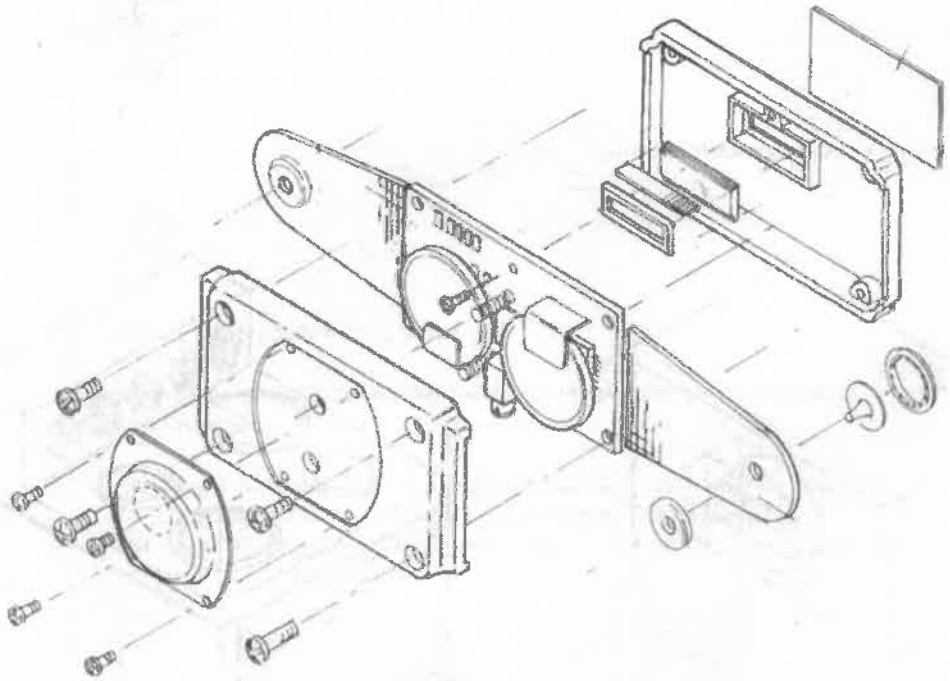




Other examples of isometric drawing:



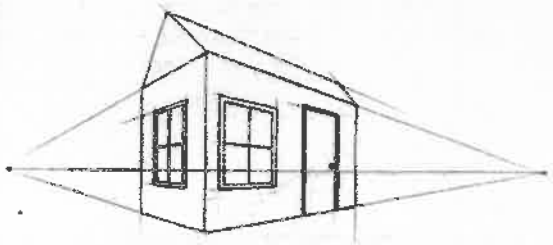




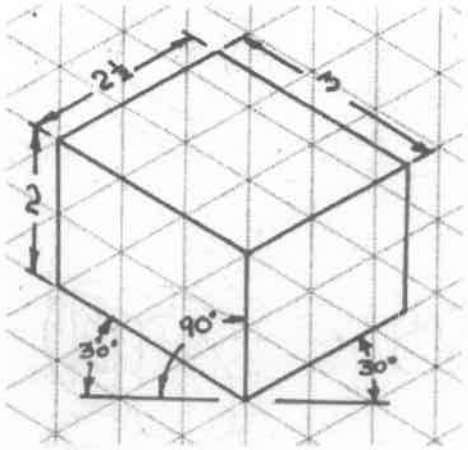
Product Concept Assembly Drawing by Tom Devlin

Isometric Drawing

When we view large objects in a room or outdoors, we generally see a perspective view. Objects are smaller as they get further away. One way to represent this on paper is a 2-point perspective drawing. Lines trailing off into the distance converge to a point.



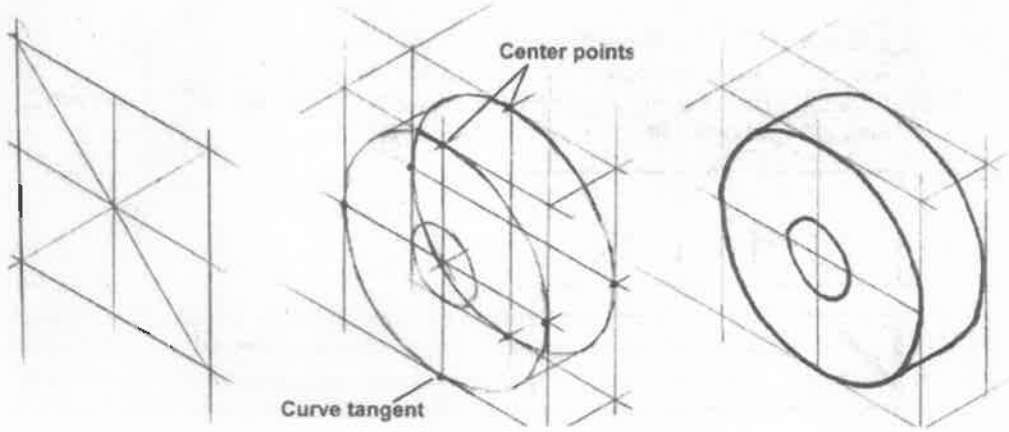
Perspective Drawing



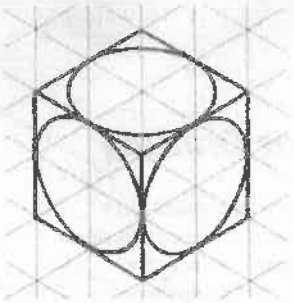
We view most smaller items from a far enough distance that the perspective is hard notice. There is an easier way to represent these objects with an **Isometric Drawing .**

The part is held with one vertical edge, then tilted toward the viewer until the other horizontal edges diverge at a 30 degree angles. All three axes are scaled uniformly. Because all lines are parallel, isometric drawings can be created quickly.

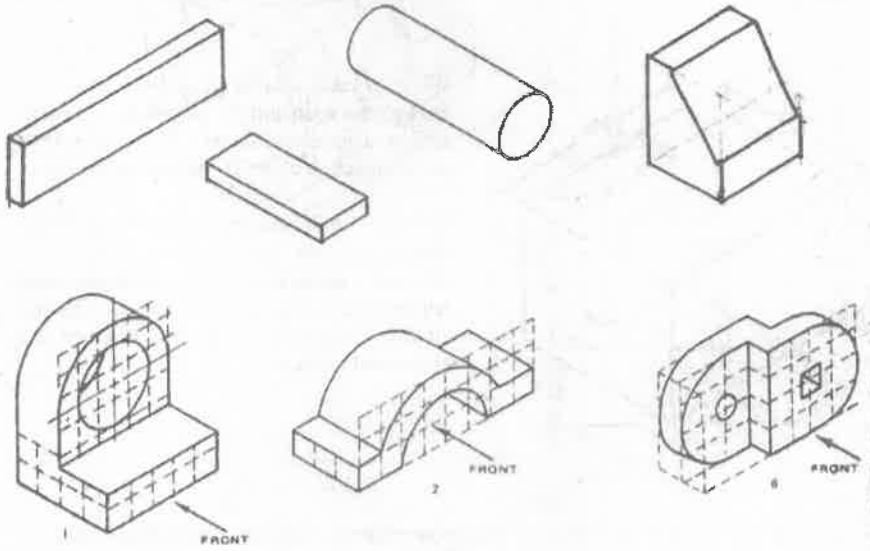
Circles are represented by ellipses. To draw an ellipse, create a box with equal sides. Draw center points on each edge (Hint: to find the center point, draw diagonals to each corner.) Connect the points with an ellipse, keeping the curve tangent to the box at the center points marked. To create a cylinder, connect 2 ellipses with tangent lines parallel to the appropriate axes. Marker over the lines you want, then erase construction lines.



Elipses in other planes.



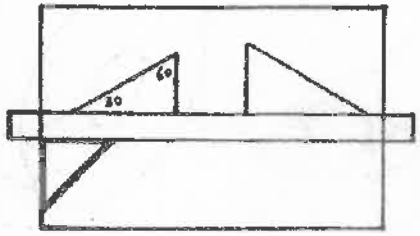
Isometric representations of various simple shapes:



Two ways to create an isometric drawing:

1. Use isometric grid paper (30, 90, 150 lines) or underlay paper to provide the axes and sketch the object.

2. Use a straight edge and a 30/60/90 triangle (see diagram.)
   a. Use a 90 corner to set the straight edge squarely on the paper.
   b. Slide the 30 angle along the straight edge to make the part lines and construction lines at 30, 90, and 150.



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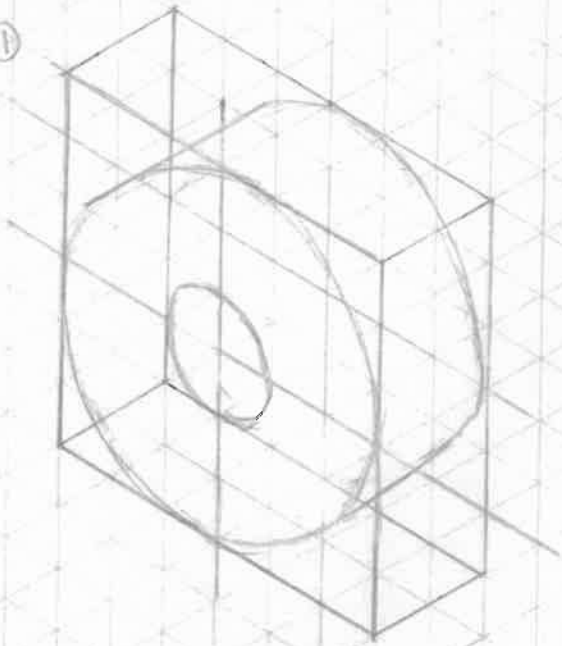

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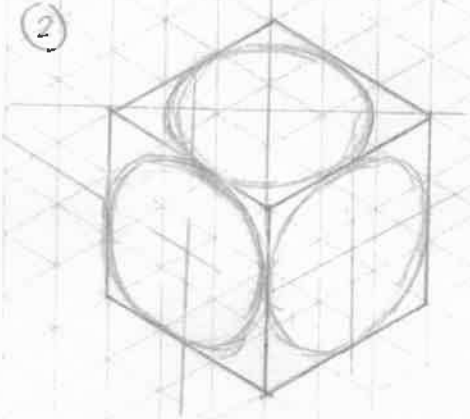

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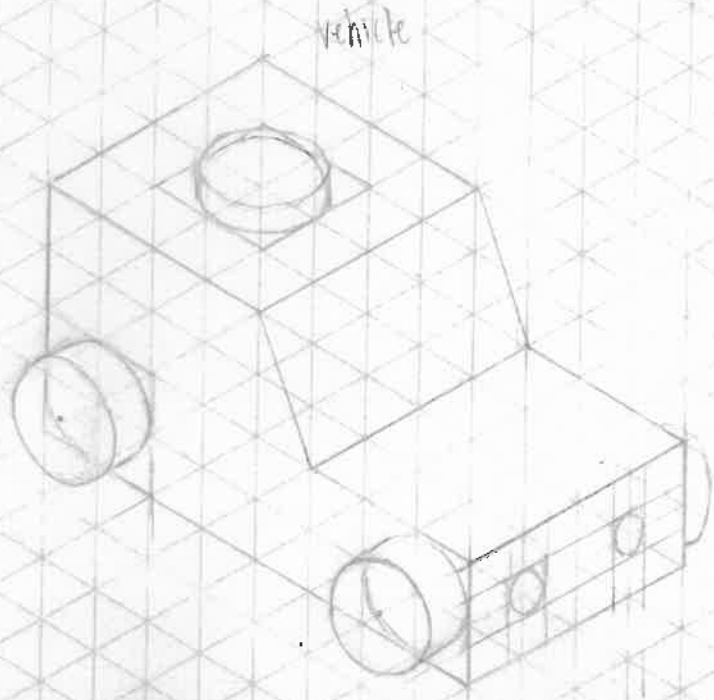

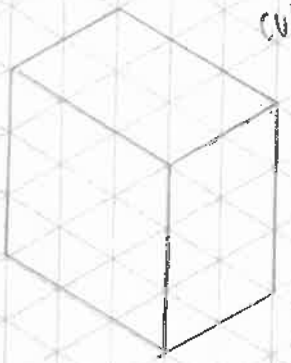

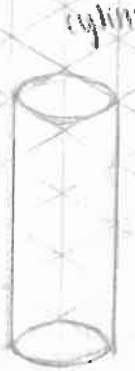

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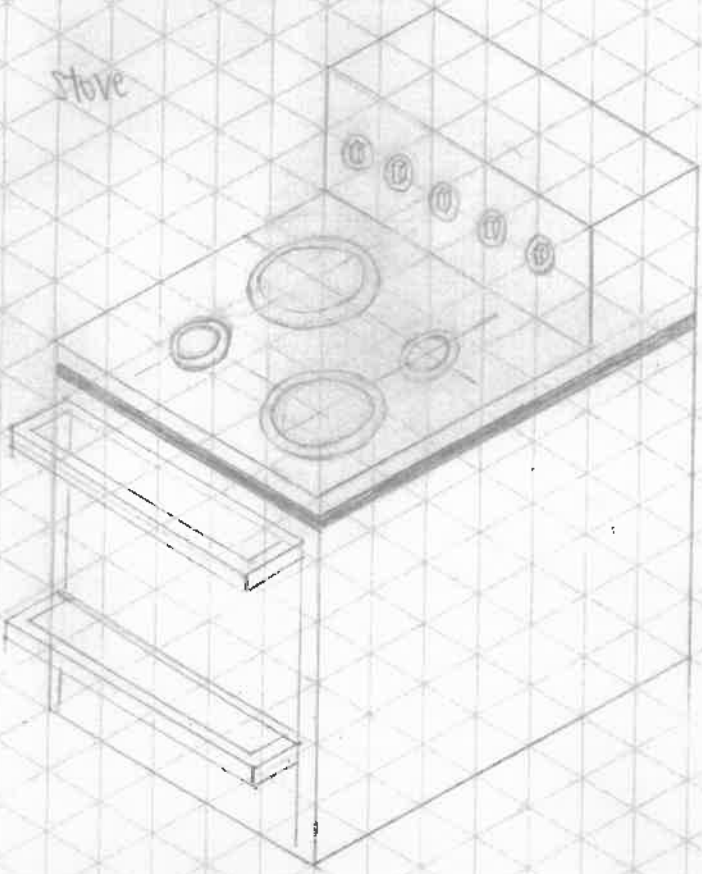

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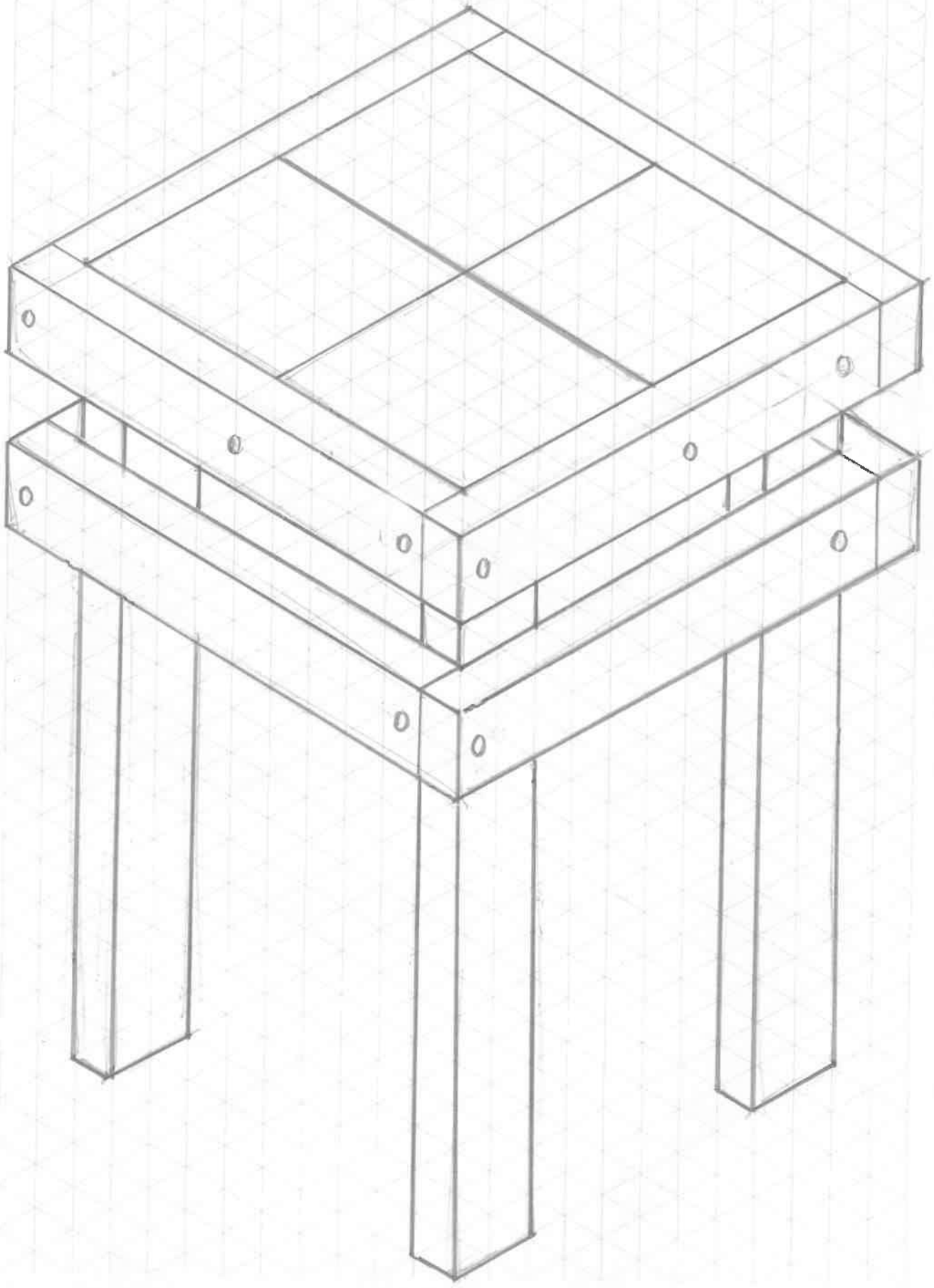
Name: Date: TALAVERA TABLE



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Bill of Materials: Talavera Tile Table
○ Wood (Pine) three 20x40x1500mm: eight 217mm pieces, four 300mm pieces, one 197mm piece, plus spare small pieces (40x20x40mm) ○ Masking Tape (one roll) ○ Wood Glue ○ Screws (30mm) ○ Talavera Tiles (four) ○ Varnish/Wood Stain ○ Tile Glue ○ Sandpaper

Production Plan: Talavera Tile Table

Step Number	Required Tools	Description	Safety Precautions
1	Saw, Tape Measure, Pencil	Cut wood into eight 217mm pieces, four 300mm pieces, one 197mm piece, and ten small 40mm pieces.	Wear an apron, safety glasses, tie hair back, be alert and careful with the saw blade
2	Glue, Tape, Wood, Screws, Drill	Create a square frame around the tiles using butt joints. Adhere the joints using glue, then screws, use tape to hold the frame. Drill small holes before putting in the screws.	Low risk but be careful using the drill. Keep fingers away from drill bit.
3		Repeat step 2 so there are two frames	
4		Place and glue 197mm piece in the middle of the frame with tiles. Place and glues two small piece on the opposing sides in the middle. After glue dries, drill screws to secure the joints. Drill small holes before putting in the screws.	
5.		Place 300mm piece in the corners facing upward to make table legs. Glue them in place and add screws into the frame through the legs. Drill small holes before putting in the screws.	
6.		Place second frame 400mm above the tabletop. Use extra small wood pieces to hold the frame steady. Glue and screw the second frame in place.	
7.	Sandpaper	Remove tiles and sand the entire table frame to remove sharp edges, smooth out butt joints, and create an overall smooth texture.	Be careful not to get splinters.
8.	Brushes, Varnish	Remove the tiles and varnish the wooden table frame. Turn table frame right side up.	Avoid getting varnish on oneself and/or clothes.
9.	Tile Glue, Tiles	Using tile glue, glue the four corners of each tile in place.	Be very careful not to glue fingers

Talavera Table

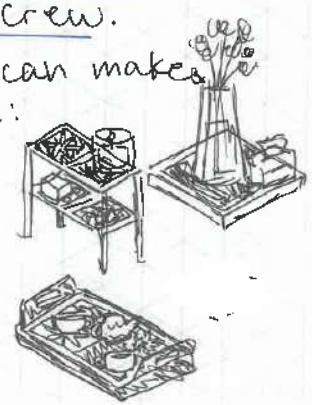
Evaluation

1. Craftmanship is a skill at making things. Good wooden furniture are cut accurately, it's joints should meet perfectly, the wooden pieces shouldn't be at a slanted angle, it needs to be strong and able to hold the weight of a person, and the screws should be screwed in correctly.

2. **What can I improve to make my table better?**
   1. Make joints fit together perfectly
   2. Fix open spaces and gaps
   3. Have talavera tiles fit properly

3. The table is strong and can hold my weight (around 32kg), which passes the requirement of at least 25 kg. It is strong because of how the joints are secured, first glue then screw.

4. With the same materials, you can make other things too. For example:
   - Small shelf
   - Coaster to put vases
   - Tray for special occasions

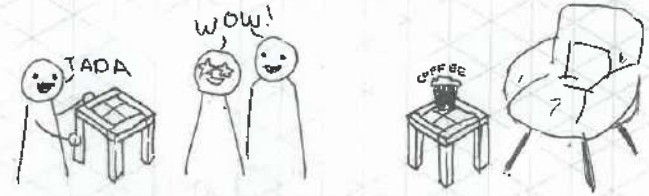


5. **Create a description for your table if you were going to sell it on TaoBao. Write a paragraph convincing someone to buy it.**

   It's getting closer and closer to the most wonderful time of the year. Have you prepared presents for your family yet? If no, then this is the perfect gift, suitable to give to your grand parents. A colorful talavera table is just what you'll need to spice up the atmosphere of your home with a lovely piece of furniture.

6. **Choose kindness! Will you give your table to someone special? If so, who will you give it to? Describe later how they reacted to your gift.**

   I showed my table to my parents and they were very happy about it (also happy that I didn't hurt myself when making it). Right now, the table is in the balcony and my dad uses it as a small coffee table.



Chinese Stained-Glass Lantern

1. WHAT ARE STAINED-GLASS WINDOWS?

Stained-glass windows are decorative windows made from pieces of colored glass arranged in patterns or pictorial scenes. Often these windows are found in churches, mosques, and other significant buildings.

2. WHAT ARE 3 FAMOUS STAINED-GLASS WINDOWS?

3 famous stained glass windows that have captivated people around the world are 'The North Rose' window at Notre-Dame Cathedral in Paris, France; 'The Windows' by Marc Chagall at the Saint-Stephan Church in Mainz, Germany; and 'The Great East Window' at York Minster in York, England.

3. WHAT ARE TIFFANY LAMPS?

Tiffany lamps are a type of decorative lamp that became popular in the late 19th century, designed by Louis Comfort Tiffany. They are renowned for their stained glass shades, which feature intricate designs and a rich array of colors.

4. HOW ARE THEY BOTH DESIGN PIECES & ART PIECES?

Stained-glass windows and Tiffany lamps blend artistry with utility, their intricate glasswork serving both as functional decor and expressive art. These pieces are esteemed for their aesthetic appeal and their ability to enhance the ambiance of a space through light and color.

5. WHAT ARE SOME OF THE ADVANTAGES OF USING PATHS TO CREATE AN ART PIECE?

Creating art with paths allows for precise editing and scalability without loss of quality, making it ideal for detailed designs that need to be resized. Additionally, paths facilitate efficient workflow adjustments, as individual elements can be easily altered.

Stained Glass Lamp: Mr. Schell

Let's celebrate China! Your task is to create a 3-panel stained-glass lamp using imagery of birds, fish, or plants from China. The style is reminiscent of Tiffany lamps. You will design the lamps with paths using Adobe Illustrator.

Inquiring/Analyzing:
In your journal, answer the following questions. What are stained-glass windows? What are 3 famous stained-glass windows? This website can be helpful:
https://mymodernmet.com/famous-stained-glass-windows/
What are Tiffany lamps? How are they both design pieces and art pieces?
https://mymodernmet.com/louis-comfort-tiffany-lamps/
What are some of the of the advantages of using paths to create an art piece (explain three)?

Developing Ideas:
Decide whether you want to create work about Chinese fish, birds, or plants. Find 3 high resolution images that are suitable for creating a drawing with paths. Write down what the specific bird, fish, or flower's name is, also write down which region of China the animals or photograph come from.

Create a Solution:
A template has already been made for you in illustrator. Place your image behind the template and use it as a reference for your drawing.
Set your stoke weight to 8. Turn off the fill color (that's the white box red diagonal line).
Make sure to connect your paths. You will see little blue lines and dots appear when you connecting them.
Once the drawing is complete and approved by the teacher, you will need two other functions: object→expand→fill, paths and window→transform→pathfinder→united

Save your finished work as an illustrator file and print it for your design journal. Export your work as a dxf file for the laser cutter.

After the work has been cut out by the laser cutter, you will fill the spaces with colored resin (not glass). Place your panels onto contact paper (sticky paper) and pour colored resin into the various shapes. Let it dry for 48 hours.

Assemble your lamp and put an LED light inside.

Evaluation
In your design journal answer the following questions

1. Test your lamp. Does it work? How do the images look? Are they easy to see? Do they represent stained glass or Tiffany lamps well?
2. In what ways can your lamp be improved? Are there aspects of the paths that could have been better? Is the color beautiful and well contained?
3. What do the people in your home think about your lamp? They are your "target audience". When will they use the lamp?

6. WHAT IS CAD? WHAT IS CAM?

CAD – Computer-Aided-Design → refers to the use of computer software to assist in creation, modification, analysis, or optimization of a design.

CAM – Computer-Aided-Manufacturing → use of software and computer-controlled machinery to automate a manufacturing process.

CAM systems are often integrated with CAD systems, allowing manufacturers to use computer-based designs for automated machining or 3D printing.

7. WHAT IS A CNC MACHINE?

CNC – Computer Numerical Control Machine → highly precise tool that's used for cutting, milling, drilling, and shaping materials like metal, wood, plastic. It operates based on computer-generated numerical codes that dictate the movement and operation of the machine's tools.

8. WHAT IS A LASER CUTTER?

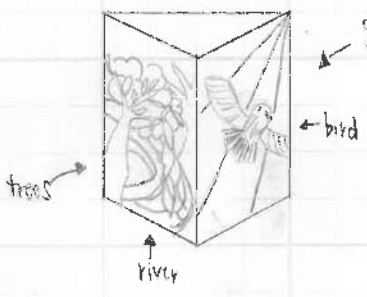
A laser cutter is a tool uses a laser to cut or shape materials based on computer-guided patterns. It can work with materials like wood, plastic, and metal for various projects.

9. WHAT DOES THE TERM PATHS REFERS TO ADOBE ILLUSTRATOR?

In Adobe Illustrator, 'paths' are lines that define the edges of shapes and drawings, made up of anchor points connected by straight or curved lines.

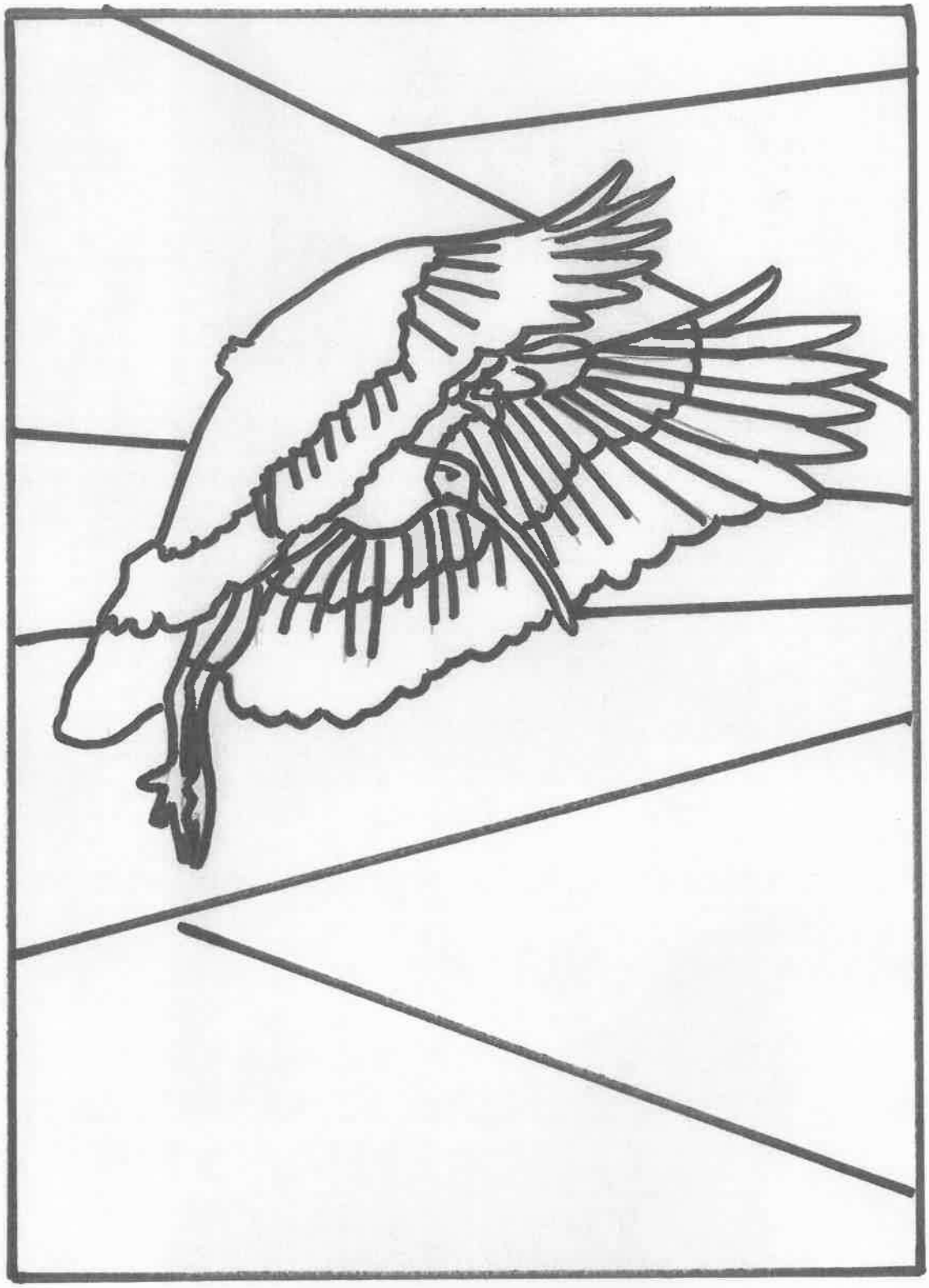
10. WHAT IS RESIN?

Resin is a sticky, fluid substance that can be found naturally in plants or produced synthetically. Natural resins are often secreted by plants and can be used in varnishes and adhesives, while synethic resins, such as epoxy and polyesters, are widely used in plastics, paints, and composite materials.



Bird Name: Crested ibis

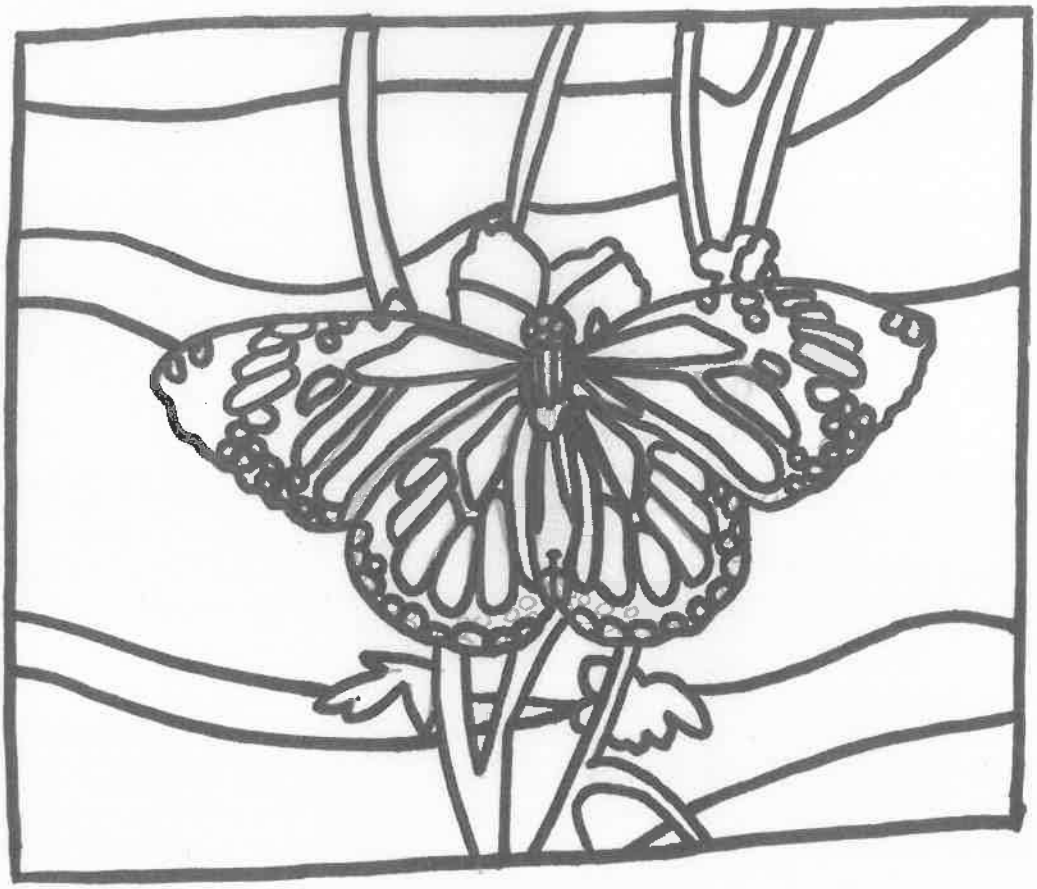
Location: Shaanxi province of China



Source: https://a-z-animals.com/animals/monarch-butterfly/

Butterfly: Monarch butterfly

Location: Hongkong

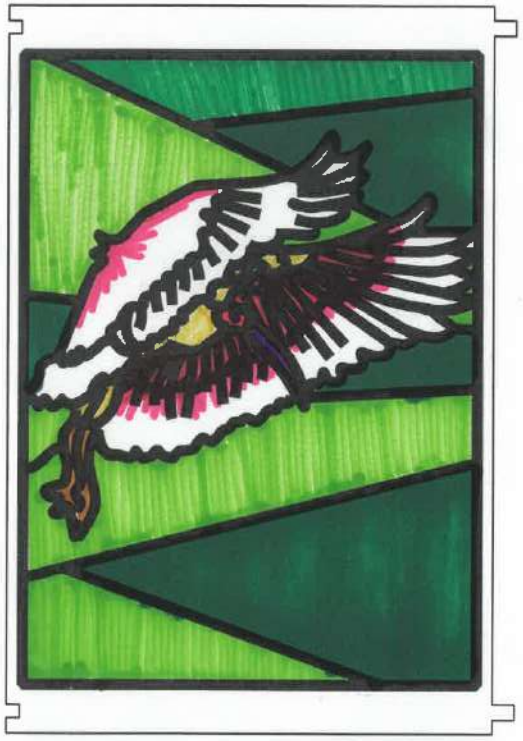


Source: https://displate.com/displate/6486492

Fish: Koi fish

Location: Shanghai

COLOR EXPERIMENTATION



The eyes

CHINESE BLUE FLYCATCHER
SOUTHERN CHINA
THAI NATIONAL PARKS.COM

CRESTED IBIS
SHAANXI PROVINCE
NEWS.CTNG.COM

PARROT
GUANGZHOU
BRITANNICA.COM

Chinese Latern Evaluation Y9

My lantern works very well, and the images are very colourful. I can see the light inside the lamp, which is good, because it would work very well as a bedside or night lamp. Before starting the project, we did a research on Tiffany lamps, and we found out that the lamps are suppose to be really colourful, with rainbow colours. The example lamps we saw have images of animals, plants, and stars. I think the lamp I made is very similiar to Tiffany lamps, except that the animals and plants images on my lantern are chinese.

I think I can improve my strategies in using Adobe illustrator, because I had a hard time using the line tool and curving tool. I spent a long time trying to get the curve to curve the right way, and the 3rd panel (Bamboo one) looks messy and a little weird. Second, while I was colouring the resin, I noticed that yellow and light green looks the exact same on it, so I had a hard time to choose a second colour. Third, I noticed that the 3 panels don't fit in very well together, and after I sanded it, the big triangle on the top does not fit perfectly. The tensile glue does not work either, because the gaps between each of the panels are too far.

I assume that the people in my home would like my lantern, but I believe that it would still only be me, using the lamp. As I said before, I would like to use it as a bedside or night lamp. I also think that it would be a good decoration, and maybe I would just hang it on walls, or maybe just put it in a display case.

LIST OF INSTRUCTIONS:

* press the small black button on the top of the lantern. If you want to close it, press the button again.

* If the bulb went out of battery, you can charge it with the charger provided.

CAD Toy Design

- **CAD** stands for Computer Aided Design
- **CAM** stands for Computer Aided Manufacture

3D printing is a process that creates a three-dimensional object from a digital model by adding layer by layer.
FDM 3D printers is the short form for **Fused deposition modeling 3D printing**, which is also known as fused filament fabrication (FFF), is a 3D printing technology that creates objects by depositing layers of melted thermoplastic material on top of eachother. Thermoplastic is a type of plastic material that softens when heated and solidifies when cooled.

Definition of Scale Drawing: An exact copy of an object that is scaled bigger or smaller.
Definition of Prototype: Turning an idea into an early version of a product that can still be developed.

Stuffed Animal Design: Mr. Schell

You will be using CAD to create a 3D conceptual scale model for a new stuffed animal toy. This unit will require a more thorough analysis of market research as it relates to children, toys, and preferences. We will also consider "user-centered design" which empathizes with the people who will potentially use your product (the stuffed animal).

Inquiring/Analyzing:
Write CAD Toy Design at the top of your page and answer the following questions.
What does CAD mean?
What does CAM mean?
What is 3D Printing?
What is an FDM 3D Printer?
What is a scale model? What is a prototype?
How much money does the toy industry generate each year?
Within the toy industry, what is the percentile of stuffed animal toys bought each year by consumers?
What are three of the most popular stuffed animals of all time (name them and sketch them)?
What colors do children tend to like for their stuffed animals?
What is the psychological function of a stuffed animal?

Developing Ideas:
Based on your research, what kind of stuffed animal will you make? Sketch an 3 examples from the front and side. What is the approximate size or each one? What materials should it be made from when it is fabricated? Join my Tinker CAD class and do the 5 Tinker CAD tutorials and familiarize yourself with the program.

Create a Solution:
Watch and follow along with the Tinker CAD tutorials on Managebac. Create a stuffed animal prototype using Tinker CAD. The size of your scale model should be 10cm. It should have the characteristics you mentioned in your research. Check with your teacher when you think you have finished. Save the project as an .stl file and email it to your teacher.

Evaluation

1. What name and description would you give your animal for a toy store?
2. Explain the demographic your stuffed animal is designed for. What age group, gender, and economic group is the toy for?
3. What was difficult about using Tinker CAD? What would you improve about your stuffed animal design? List 3 things.
4. What advice would you give to a friend who is going to create something in CAD for the first time?

The global toy industry generates billions upon billions of U.S. dollars each year. Within the industry, 7~10% of stuffed animal toys bought each year by consumers.

Popular stuffed animal designs-

Some popular colors include: Blue, white, pink, purple, etc.
Stuffed animals can trigger emotional responses such as empathy, affection and comfort. They can help us cope with stress and loneliness as well.

Front View

Side view

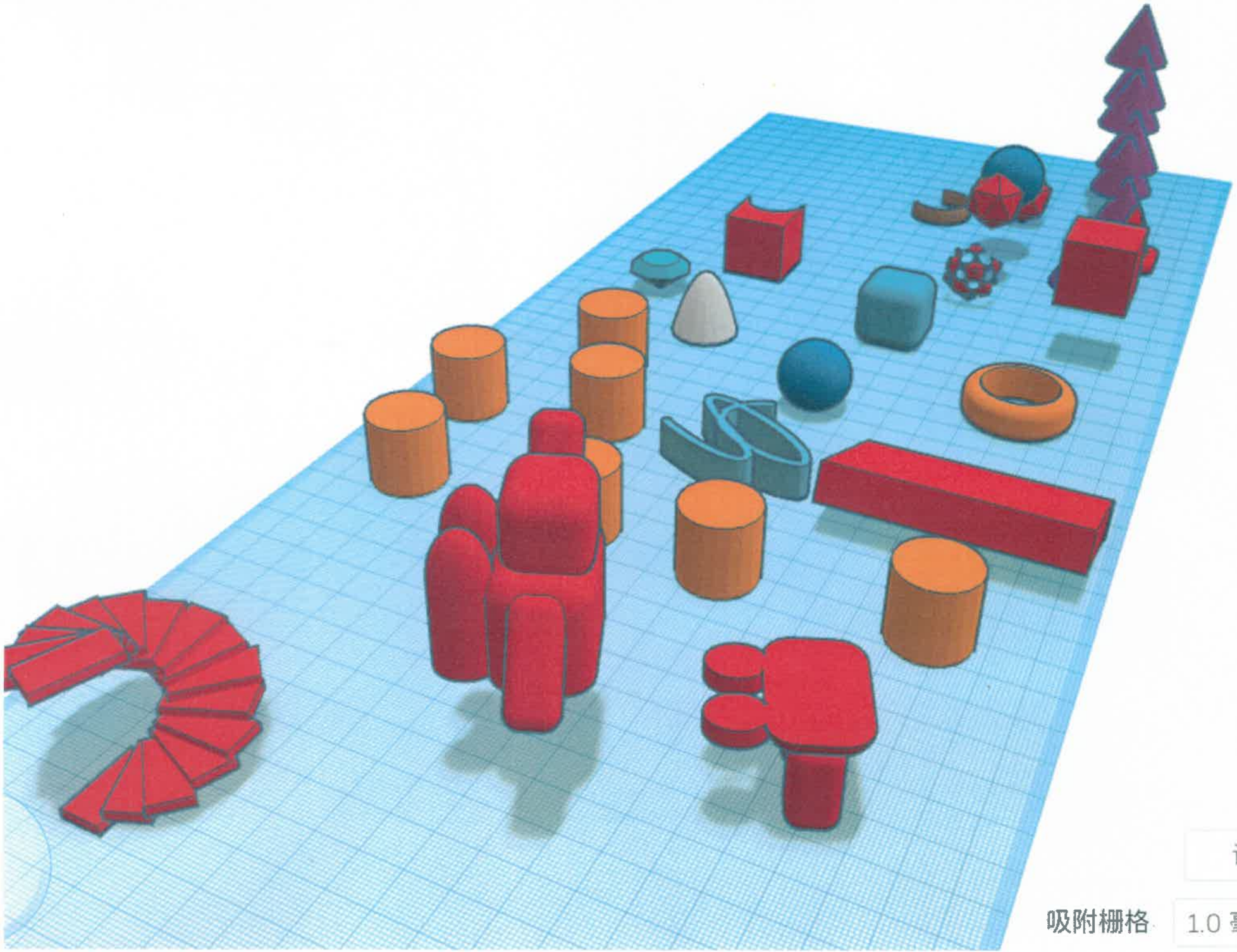
Crab

Duck

Bear

Front view

Side view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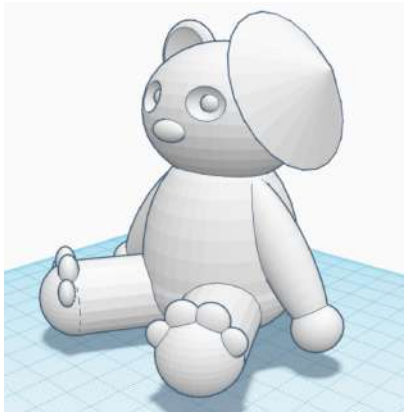
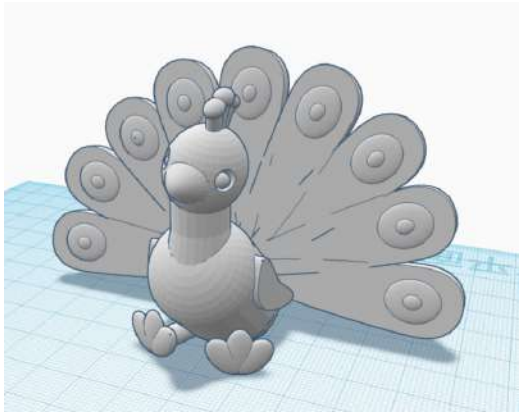
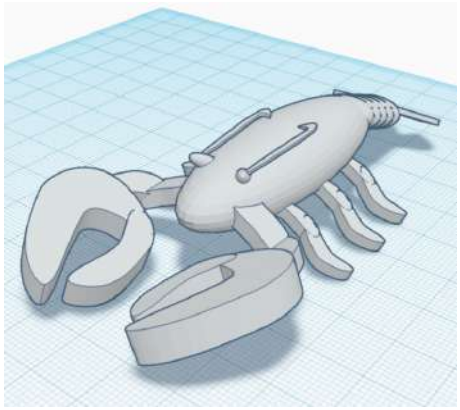
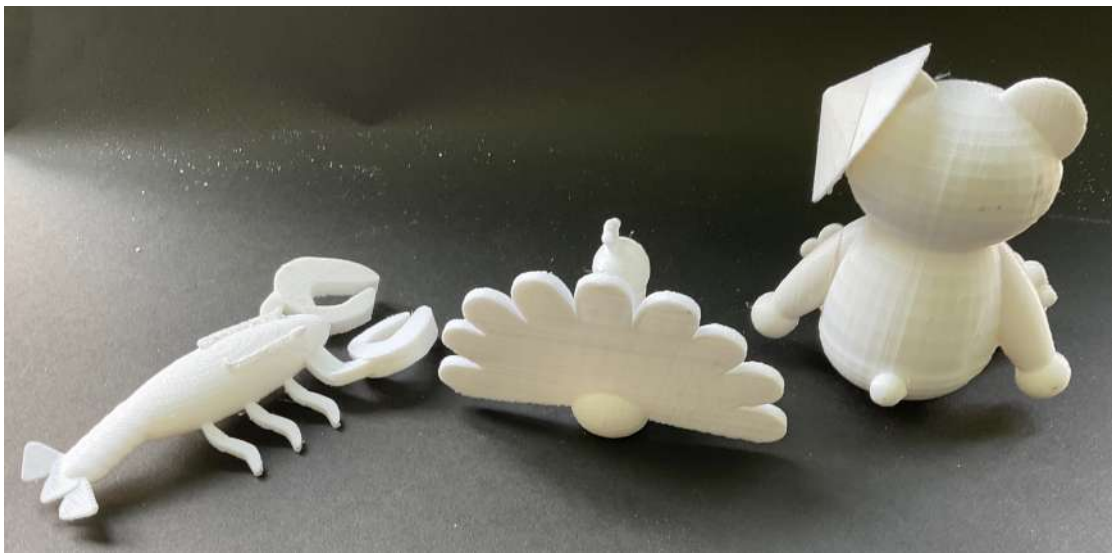






StuffedAnimal evaluation

April 2024

1. What description & name would you give your animal for a toy store or TaoBao?

Cute Toy Animals - Toy animals that are cute & silly & cheap

2. Explain the demographic your stuffed animal is designed for. What age group, gender, and economic group is the toy for? What is the intended psychological function of your stuffed animals on the end user?

Age - Kids (5~12 year old) Gender - No specific gender but probable female

Economic group - Anyone (because its cheap)

Psychological function - To provide comfort and to bring smiles to peoples faces

3. What was difficult about using Tinker CAD? What would you improve about your stuffed animal design? List 3 things. What is the scale of your prototypes?

Something that was hard about using CAD was creating tapered ends or slightly triangular yet still round shapes. I would improve the shape of the first model I made, a duck/penguin (whichever you see it as). I would also improve the 3rd model I made (which was a bear), and make the head bigger and the body smaller to make it look cuter. Then I would also like to improve the shape of the heart claws on my 2nd model which was a crab. The scale of the prototype is 100mm being the longest measurement and should be 250mm when it is sold, so the ratio is 1:2.5.

4. What advice would you give to a friend who is going to create something in CAD for the first time.

First, do some exercises to familiarise yourself with how to use and create shapes, along with other functions in CAD. Then when making a model, don't make it too complicated but don't make it too simple either. Knowing exactly what features and design you want before starting a model also helps

Creating a metaphorical Self Portrait

1. Open a New Document in Photoshop. Make it 10 x 7.5 inches, 300 pixels/inch. Save it as YourName_SelfPortrait
2. Find a city that represents you and open the image in Photoshop (must be high resolution). Transform it to fit into your document.
3. Next find two animals that fit your personality and insert them into your project. You should have three different layers now.
4. Scale your animals to fit into the scene and erase the backgrounds around your animals using the selection tools or eraser.
5. Use Image --> Adjustments --> Hue/Saturation to match the color tones of your layers.
6. Find a different sky. Place it as a layer behind your city and delete the sky of your city.
7. Add shadows and highlights on your animals using the burn/dodge tools to help them fit in the scene.
8. Try filtering an area of the city.
9. Add an art piece you like to the composition.
10. Add your favorite mode of transportation to the landscape.
11. Use the Text tool to type your name.
12. Change the color and size of the text. Use a layer effect to enhance your text.
13. Look for things to improve, save as jpeg. your-name.jpg and turn it in on airdrop.

KOH ENDO
KA-TUN
2009.5.15
Hisamitsu
ウロンバス
プライス コンタクト
東方神起
煩堂書

Food Logo

GRAPHIC DESIGN

What is a pitch?
The process of devising concepts or designs based on a potential clients brief.

What is a logo's purpose?
Logos are a point of identification. They're the symbol that costumers use to recognize your brand, and also to attract costumers

What are some of the common characteristics of a logo?
- Simple: Good logos often are simple
- Memorable: stand out to other logos
- Timeless: relevant today but not so trendy that will quickly outdated
- Relevant: relevant to your business and industry
- High quality typography: can communicate likeability, wrong font could communicate negative connotations.

- Simple
- memorable
- Typography
- Simple

What are the advantages to designing something with paths in Illustrator?
- Easy to export, PDF
- Doesn't loose quality when changing sizes
- Be read by different types of machines.

Menu/Logo Design: Mr. Schell

A new food company is looking for its corporate identity. They've contacted your design firm among others to create a pitch. Your task is to create their logo. They want a catchy image, contrasting colors, and integrated text with their company's name as part of the design. Everything else is up to you!

Inquiring/Analyzing:
In design terminology, what is a pitch? What is a logo's purpose? What are some of the common characteristics of a logo? Draw five well-known food logos and write a sentence about what you like about them. What are the advantages to designing something with paths in Illustrator?

Developing Ideas:
Sketch three original logo designs in your journal. These can be scanned so you can draw over them later with paths. The drawings should be integrated into an overall simple shape. Pick your best logo out of the three and refine the drawing. Decide what colors you want to use in your design and what font. Scan your drawing into the computer to work on.

Create a Solution:
Create your logo using paths in Adobe Illustrator. You will turn in 2 versions. One in plane black lines that are your paths saved as a pdf, the second one is a colored version finished in Photoshop and saved as a jpeg. Afterwards create a professional looking menu cover for display. The size of the menu cover is A4.

- Three original design ideas for a graphic logo have been sketched out in your journal. The sketches are not too simplistic and show attention to detail.
- The best of the three logos has been redrawn with paths in Illustrator.
- The logo has been colored and refined in Photoshop. Considerations were used in coloring the logo such as contracting colors. The text is bold, easy to read, and captivates one's attention. The overall appearance of the logo is clean and catchy.
- A professional looking stationary set (letterhead, business card, and envelope) have been made utilizing the logo.

Evaluation

1. What was the most difficult part of using paths to create a design? Given the advantages to using paths, is it worth the extra work to make a design with them?
2. What artistic considerations did you make while designing your logo? In what ways does it stand out compared to others?
3. Since drawing with paths can be difficult, how was your attention span during the project? Were you able to stay focused? What challenges did you overcome in creating your logo?
4. Does your menu look nice? What about it would make people want to come to your restaurant? Name four types of dishes offered at your restaurant.

BRAINSTORMING:

— My Logo —

BRIEF:

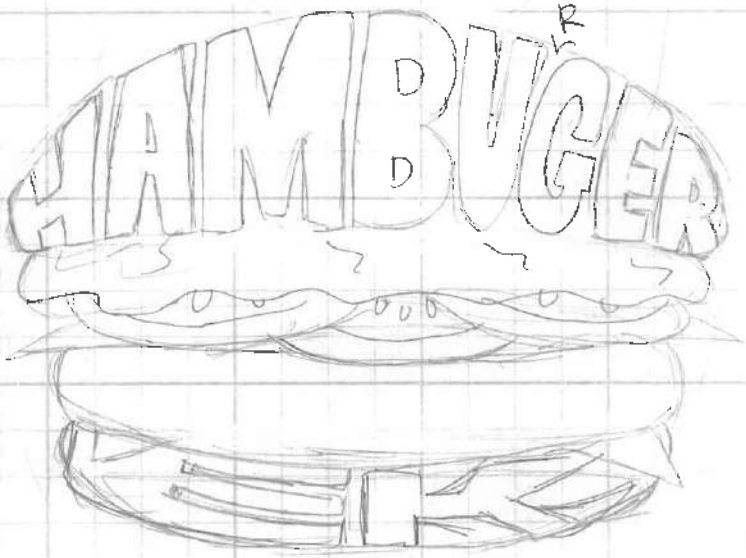
Name: EK Burger cat

Color: Burger color, red, green, brown, yellow.

Description: Expensive burger, used high quality food.

Style: bold text

Market competitors: Mcdonalds, burger king, shake shack.



BURGER

COFFEE

SPIRAL
20
DONUTS

BURGER

COFFEE

SPIRAL
20
DONUTS

MENU

We all need to make time for a burger once a while.

MENU

Menu

Ordering

Food Logo Evaluation

1. I think the most difficult part when using paths is coloring my hamburger, the shade. Because I need ~~the~~ to do the shade in curves, and it is really hard to control the mouse. The advantages of using paths, they can be in any size and do not loose quality, has a small file size, change the thickness of a line, and also using paths can make your drawing more perfectly, because there are different tools you can use to draw. I think it is worth the extra work to make a design using paths, because it is convenient, easy to use.

2. In my artwork, I changed the bun the the word burger, and I also added highlights to make it glow. In addition, I also added shadings, for example the shading on the beef ~~of~~ under the cheese. I also made the menu background black and simple, the words too, to stand out the hamburger.

3. Some challenges I overcame was outlining the hamburger, because it can't be wiggly or not symmetrical, or else it would be not-good looking. I made my text (typography) very simple and the font is skinny, because I want to make the hamburger stand out more, so I kept the text simple. But for the word "MENU" I make it slightly bigger and bolder, so that people can notice that it is a menu immediately. Some decisions I made while doing the coloring was choosing the colors and also the color for the shades. I chose bright colors to attract costumers.

4. I think overall, my menu looks nice, I think the hamburger looks nice, and would attract costumers.

Description: Welcome to Emmie Burger, where every bite is a celebration of flavor! At Emmie's Burger, we pride ourselves on crafting gourmet burgers using the freshest ingredients and innovative recipes. Our cozy, ~~friendly~~ family-friendly atmosphere is the perfect place to enjoy a delidous meal with friends and loved ones. Whether you're craving a classic burger or something a bit more adventurous, we have something to satisfy every person.

Classic Burger: Juicy beef with cheddar cheese, crisp lettuce, ripe tomatoes, spicy sriracha crunch, mushroom swiss burger, and veggie garden burger.

CEREAL BOX DESIGN

- In Design Terminology, What Is A Prototype?
  A prototype is a preliminary model or sample of a product or system that is built to test and evaluate its design, functionality, and performance before its put into production or released to the market.

- What Is Children's Favorite Or Most Popular Cereal Characters?
  Tony the Tiger, Lucky the Leprechaun, Trix Rabbit, Count Chocula, Franken Berry

- Why?
  Cereal characters that are mentioned above are popular because they are colorful, fun, and engaging characters that help to market the cereal to children.

- What Design Aspects Attract Children To Cereal Boxes?
  Colorful and vibrant packaging, fun and engaging colors, interactive packing, and clear and simple messaging.

Cereal Box Design

Quaker has contacted your design firm about creating a new children's cereal. This will require many steps as you will need to develop the character for your cereal as well as the theme and name. You will also need to develop what goes on all the different panels and construct a maquette (prototype).

Inquiring/Analyzing:
In design terminology, what is a prototype? What is children's favorite or most popular cereal characters? Why? What design aspect attract children to cereal boxes? What kind of things a appear on the different sides of a cereal box? What is a headline, subheading, and copy in a design? How can they be used to make a cereal box? What is royalty free imagery? Why is it important to use images that are not copyrighted?

Developing Ideas:
Sketch some ideas for your cereal box character. Create a catchy name and subheading for your cereal brand. Plan out what will go on each of your panels using a template.

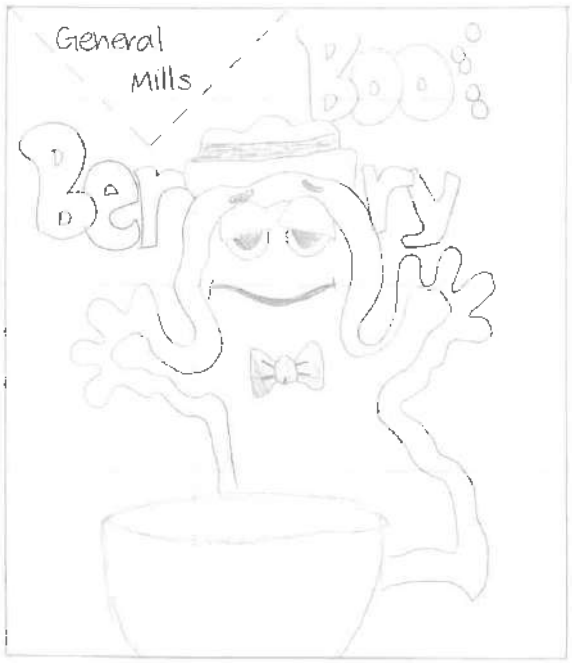
Create a Solution:
Using Photoshop and Illustrator, create a 5-panel cereal box using a combination of your original character, royalty free images, and text (be sure to use what you learned in the typography lessons). The cereal bow will need to have a front, back, two sides, and a top. A template for this is provided.

Evaluation

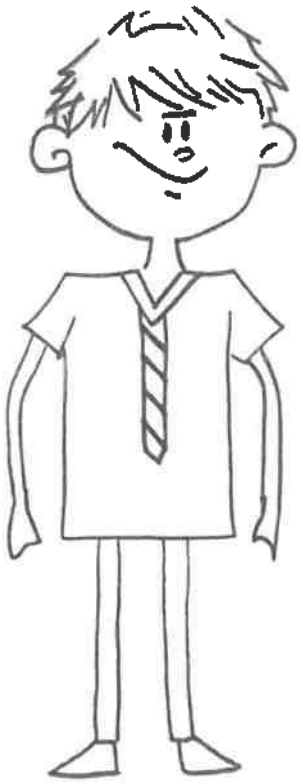
1. What is the catchiest aspect of your character? What would make a child pick your cereal box over the other ones at the supermarket?
2. What fonts did you use for your headline and subheading? What considerations did you make a picking those fonts?
3. What was most difficult about making a maquette (or prototype)?
4. What advice would you give a design student before starting this project?

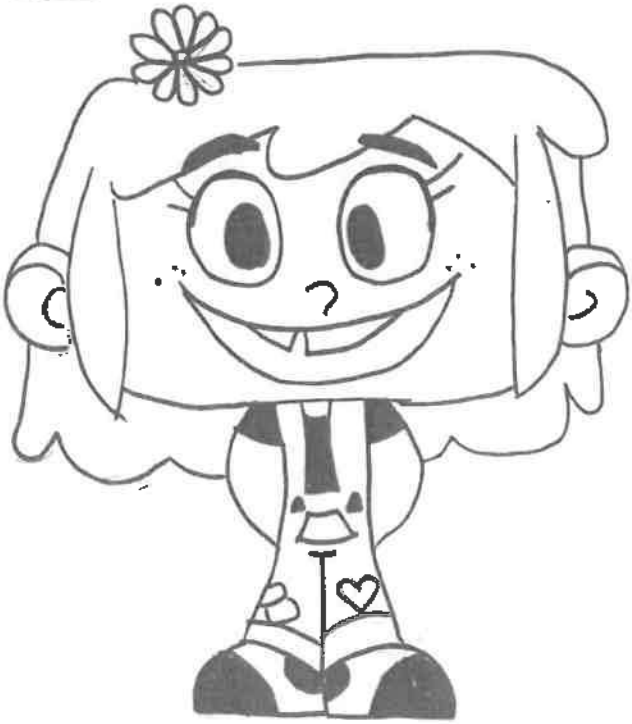
- What kind of Things Appear On The Different Sides of A Cereal Box?
  On the front, you find a brand logo, product name, images or illustrations of the cereal, nutritional information and serving size details. On the back, there would be a barcode, expiration date, contact info, games, puzzles, or educational content.
- What Is A Headline, Subheading, And Copy In A Design?
  In design, a headline is the main title or heading that grabs the reader's attention and communicates the essence of the content. A subheading supports the main headline. Copy refers to the written content or text in a design.
- How Can They Be Used To Make A Cereal Box?
  In designing a cereal box, the headline serves as the main title to attract attention, the subheading provides additional info, and the copy includes all written content on the box.
- What Is Royalty Free Imagery?
  This refers to images that are licensed for use by individuals or businesses for a one-time fee, allowing them to use the image multiple times without additional charges.
- Why Is It Important To Use Images That Are Not Copyrighted?
  Because doing so helps avoid legal issues related to copyright infringement. Copyright laws protect the rights of creators and owners of images.

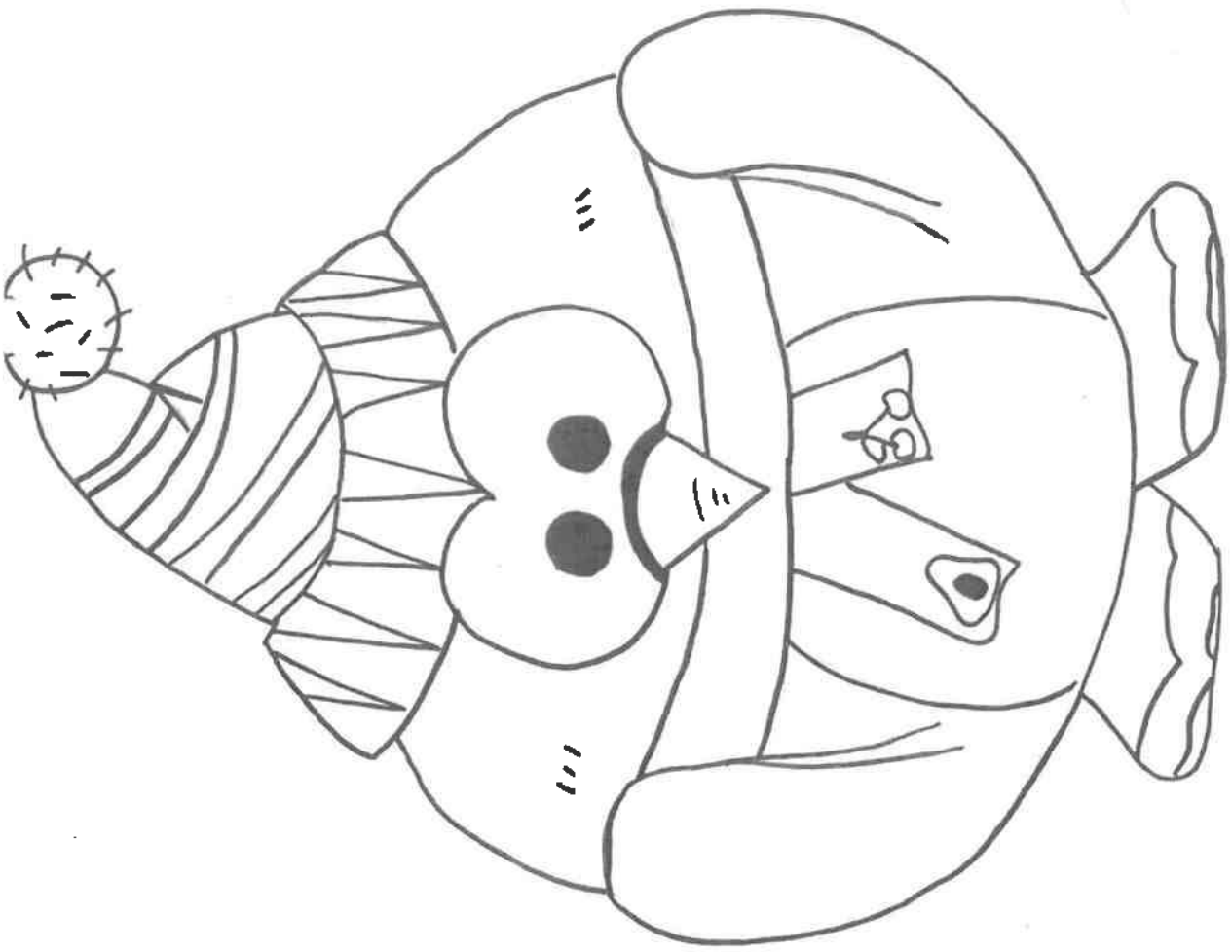
·Sketch 3 popular cereal characters



PRACTICE ILLUSTRATION







Browne Bunny

ChocoFusion O's

Triple ChocoBlast Bites

HEADLINE

SUBHEADING

← cereal

character

HEADLINE

LIVE, LAUGH, AND LOVE

logo →

HEADLINE

SUBHEADING

cereal

milk

character

HEADLINE

NUTRITION TABLE

INFO (ingredients, expiration date)

Fun facts about CAPYBARAS and how to feel like them!

1. ~

2

3.

HELP CAPYBARA OUT OF THE FOREST!

character

enter

MAZE!

exit

Puffy penguin pebbles

Made with

subheading

PUFFY PENGUIN PEBBLES

HEADLINE:

Nutrients

Info

Expiration:

Produced:

FIND "PUFFY THE FRUIT PENGUIN"

A L P U S T H C F E B D G I J
H S T U L K X Y C D Z E H A M
N U H K F R U I T Z H K D C L
O L E A N F G A R O X O C D E
P E N G U I N M

1 PUFFY 3. FRUIT
2. THE 4. PENGUIN

CHOCOBLAST BITES

CHOCOBLAST BITES

DID YOU KNOW?

Capybara's are the worlds LARGEST rodents!

Kellogg's

CHOCOBLAST BITES

Breakfast Bliss in EVERY BITE!

NET WT 24 OZ (680g)

CHOCOBLAST BITES

Nutrition Facts

6 servings per container

Serving size 1 Bar (45g)

Amount per serving

Calories 180

	% Daily Value*
Total Fat 6g	**8%**
Saturated Fat 4g	**20%**
Trans Fat 0g	
Cholesterol 0mg	**0%**
Sodium 170mg	**7%**
Total Carbohydrate 21g	**8%**
Dietary Fiber 9g	**31%**
Total Sugars 9g	
Incl. 9g Added Sugars	**18%**
Protein 12g	**23%**

Vitamin D 2.3mcg 10%	Calcium 320mg 25%
Iron 4.5mg 25%	Potassium 40mg 0%
Vitamin A 25%	Vitamin C 25%
Vitamin E 25%	

* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

Ingredients: Whole grain wheat, sugar, semisweet chocolate (sugar, chocolate, cocoa butter, soy lecithin, vanilla extract), **cocoa processed with alkali, contains 2% or less of** salt, brown rice syrup, gelatin, natural flavor, BHT for freshness.
Vitamins and Minerals: Reduced iron, folic acid.
CONTAINS WHEAT AND SOY INGREDIENTS.

CAPPY'S CHOCOLATE CHOMP MAZE

Go LOCO for COCO!!

HELP CAPYBARA OUT OF THE MAZE!!!

(MADE WITH REAL FRUIT!!!)

PX 3

PUFFY PENGUIN PEBBLES

PUFFY PENGUIN PEBBLES

What a nice day to start off with a bowl of BLUE cereal!

Nutrition Facts

8 servings per container

Serving size 2/3 cup (55g)

Amount per 2/3 cup

Calories 230

% DV*		
12%	**Total Fat** 8g	
5%	Saturated Fat 1g	
	Trans Fat 0g	
0%	**Cholesterol** 0mg	
7%	**Sodium** 160mg	
12%	**Total Carbs** 37g	
14%	Dietary Fiber 4g	
	Sugars 1g	
	Added Sugars 0g	
	Protein 3g	
10%	**Vitamin D** 2mcg	
20%	**Calcium** 260mg	
45%	**Iron** 8mg	
5%	**Potassium** 235mg	

* Footnote on Daily Values (DV) and calories reference to be inserted here.

		% DV* / % VD*		% DV* / % VD*
Total Fat/Grasa Total	0g	0%	0g	0%
Saturated Fat/Grasa Saturada	0g	0%	0g	0%
Trans Fat/Grasa Trans	0g		0g	
Polyunsaturated Fat/Grasa Poliinsaturada	0g		0g	
Monounsaturated Fat/Grasa Monoinsaturada	0g		0g	
Cholesterol/Colesterol	0mg	0%	<5mg	1%
Sodium/Sodio	190mg	8%	270mg	12%
Total Carbohydrate/Carbohidrato Total	33g	12%	42g	15%
Dietary Fiber/Fibra Dietética	1g	4%	1g	4%
Total Sugars/Azúcares Totales	12g		22g	
Incl. Added Sugars/Incl. azúcares añadidos	12g	24%	12g	24%
Protein/Proteínas	2g		8g	
Vitamin D/Vitamina D	2mcg	10%	4.2mcg	20%
Calcium/Calcio	0mg	0%	220mg	15%
Iron/Hierro	7.2mg	40%	7.2mg	40%
Potassium/Potasio	30mg	0%	320mg	6%
Thiamin/Tiamina		20%		25%
Riboflavin/Riboflavina		20%		45%
Niacin/Niacina		20%		25%
Vitamin B_6/Vitamina B_6		20%		20%
Folate/Folato (folic acid/ácido fólico)	(70mcg)	30%	(70mcg)	30%
Vitamin B_{12}/Vitamina B_{12}		20%		50%

* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice. / El % Valor Diario (VD) le indica cuánto un nutriente en una porción de alimentos contribuye a una dieta diaria. 2.000 calorías al día se utiliza para asesoramiento de nutrición general.

12345678910

Help Puffy find the way out of the maze to get to the sardines!

R E T I X W O N G Y
U F K Q H K R I E O
Z K P A S Q C U N J
Q B L P R C J G T S
X F O F O G P N O Y
R J P C H H K E O X
J M Z C B T K P O F
E A D E L I E C F T
F S T L A E S G O T
H Q B H B P S T J R

Find the animals that are found in Antartica!

WHALE

PENGUIN

SEAL

Puffy Penguin Pebbles PPP

Farm to Table Quality

BARN KIBBLES

Kellogg's

BARN KIBBLES

what a way to start your day with a healthy breakfast of Barn Kibbles!

Gluten free!

Low in fat!

Whole qrain oat!

Help me find my bone by getting thr-ough this maze! It would really be great if you could help out the farm dog!

I Really wish I had my Bone Right Now!

Kellogg's

Farm to Table Quality

BARN KIBBLES

Nutrition Facts

1 serving per container

Serving size 1 Box (23g)

Amount per serving

Calories 90

	% Daily Value*
Total Fat 0g	**0%**
Saturated Fat 0g	**0%**
Trans Fat 0g	
Cholesterol 0mg	**0%**
Sodium 160mg	**7%**
Total Carbohydrate 17g	**6%**
Dietary Fiber 0g	**0%**
Total Sugars 3g	
Includes 3g Added Sugars	**6%**
Protein 4g	

Vitamin D 1.1mcg 4%	• Calcium 0mg 0%
Iron 6.4mg 35%	• Potassium 10mg 0%
Vitamin A 4%	• Vitamin C 4%
Vitamin E 4%	• Thiamin 10%
Riboflavin 10%	• Niacin 10%
Vitamin B_6 10%	• Folate 255mcg DFE 60% (150mcg folic acid)
Vitamin B_{12} 10%	

* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

Kellogg's

Farm to Table Quality

BARN KIBBLES

Cereal Box Design — Evaluation

1. What is the catchiest aspect of your character? what would make a child pick your cereal box over the other ones at the supermarket?
• The catchiest aspect of my character is that its cute, round, and it fits very well with my cereal box's background. The character I'd chosen is a penguin, so I've decided to let antartica be the background. Instead of white, I chose the background to be blue because that is the color of my cereal. A child would pick my cereal box over the other ones because my cereal box's color is very catchy, and the color of my cereal is very different from other cereal.

2. What fonts did you use for your headline and subheading? What considerations did you make on picking those fonts?
• For the heading on my front panel, I chose 'Arial Black' as my font, and for my subheading, I chose 'porky's' for all the side panels. When I was deciding on the fonts, I wanted a font that is big and thick and catchy, while for my subheadings, I wanted a more creative and artistic font.

3. What was most difficult about making a maquette? (or prototype)
• Deciding on the look of my character, and how my box look, and the design of my box.

4. What advice would you give a design student before starting this project?
• Always try to do a brief design and the layout of your cereal box, because that would make it a lot more easier when moving on to photoshop where you do the actual thing. Also remember to draw out the character you've chosen with details, because then, when you move on to photoshop, all you need to do is just fill it with color.

5. Write an advertisement for your cereal for the radio. (Spotify commercial)
• Are you tired of boring, bland cereal that doesn't wake up your taste buds? Than you need to try PUFFY PENGUIN PEBBLES! Every spoonful packs with fresh blueberry punch with crispy flakes. You'll hear the 'crunch' from across the room as you bite into these blueberry 'Puffy pebbles'! Don't settle for a boring bowl in the morning again — Puffy Penguin pebbles brings the flavor and the crunch that will blow your mind and wake up your BLUE senses! Head to your nearest grocery store and buy PUFFY PENGUIN PEBBLES NOW!!! Your taste buds will thank you!

CLASSIC DESIGN

MATERIALS ANALYSIS:

What Is MDF?

- MDF (Medium Density Fiberboard) is an engineered wood product made from wood fibers that are combined with wax and resin binders, and pressed into panels under high temperature and pressu

What Is Plywood?

- An engineered wood product made by gluing together thin layers of wood veneers, with the grain of each layer oriented perpendicular to the adjacent layers.

What Is Chipboard?

- An engineered wood product made from wood chips, sawmill shavings, or sawdust bound together with synthetic resin or other suitable binders under high temperature and pressure.

What Is OSB?

- Oriented Strand Board, is an engineered wood panel product made from wood strands or flakes arranged in layers and bonded together with resin adhesives under heat and pressure.

What Is Danish Oil?

- A finishing oil that provides a hard-wearing, satin finish to wood surfaces. It penetrates and polymerizes into wood.

Art Deco Trays

Inquire and Analysis
Materials analysis: What is MDF? What is Plywood? What is chipboard? What is OSB? What is Danish Oil? What is citrus shield wax? What is Resin? Write down the works and define them.

Concept inquiry: What is Art Deco and when was the art movement prevalent?
What is Bauhaus and when was the art movement prevalent?
What are some of the most iconic art deco and Bauhaus examples in furniture or objects? Sketch two.
What is an example of Art Deco architecture in Shanghai? Sketch one.
What is classic design? What is retro-styling?

Developing Ideas
Look up two examples of Art Deco serving trays and sketch them and analyse their characteristics.
Example 1:
https://www.sellingantiques.co.uk/535281/french-art-deco-geometric-serving-tray-c1930/
Example 2:
https://sherylls-artdeco.com/product/french-art-deco-tray-5/

You will be creating a 300x500mm Art Deco style wooden tray with OSB. It will use 3 tones of stain/varnish. The motif should use some triangles and look classic yet fresh and modern. Sketch three ideas. Pick the best one. Then also draw how to make the handles.

Creating a Solution
Follow the instructions in the class PowerPoint to make your tray.
Create a production plan and bill of materials for the serving tray.

Evaluation
What was most difficult about making your tray?
What would you improve about it (three things)?
How well does your tray fit your target audience?
Does your tray hold enough weight?
Write an advertisement description for Taobao emphasizing on the classic design and sustainability aspects of your serving tray.

What Is Citrus Shield Wax?

- A premium paste wax product made by Howard Products. It is designed to clean, condition and protect wood surfaces, providing a brilliant, long-lasting shine.

What Is Resin?

- A solid or highly viscous substance that can be derived from natural plant sources or synthetically produced.

CONCEPT INQUIRY:

What Is Art Deco And When Was The Art Movement Prevalent?

- Art Deco was a popular visual arts, architecture, and design style that first emerged in France just before 1920 and flourished internationally through the 1930s.

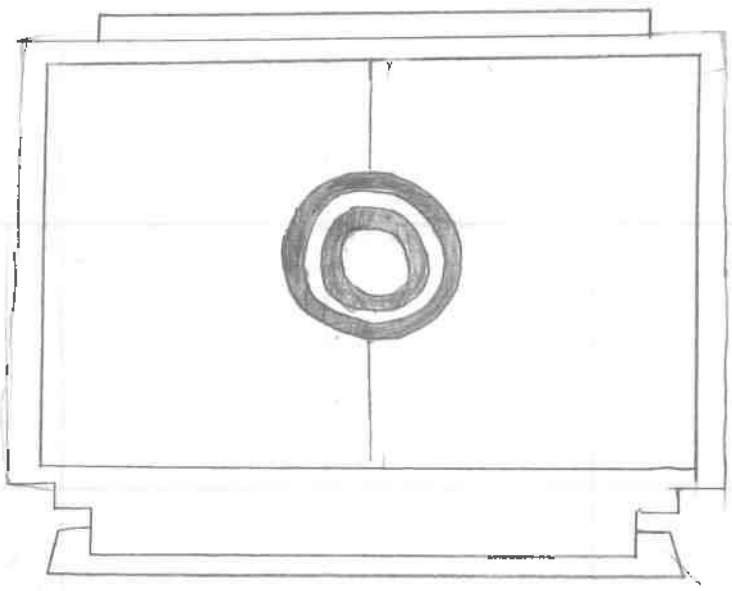
What Is Bauhaus And When Was The Art Movement Prevalent?

- Bauhas was an influential art and design movement that originated in Germany in the early 20th century. The Bauhaus school was founded in 1919 in Weimar, Germany by Walter Gropius. The Bauhaus movement reached its peak of influence in the late 1920s and early 1930s.

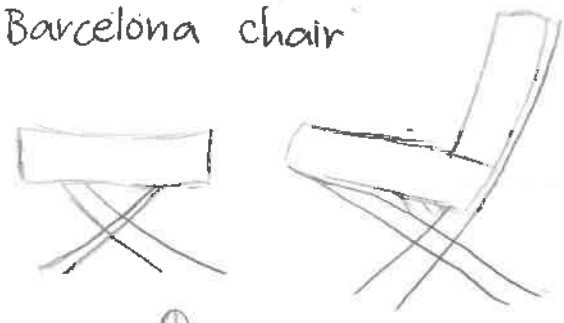
What Are Some Of The Most Iconic Art Deco And Bauhaus Examples In Furnitures Or Objects? Sketch two.

- Art Deco: Chrysler Building (New York City)
  Ruhlmann Macassar Cabinet
  Cartier Art Deco clocks
- Bauhaus: Wassily Chair by Marcel Breuer
  Barcelona Chair by Mies van der Rohe
  Nesting Tables by Josef Albers

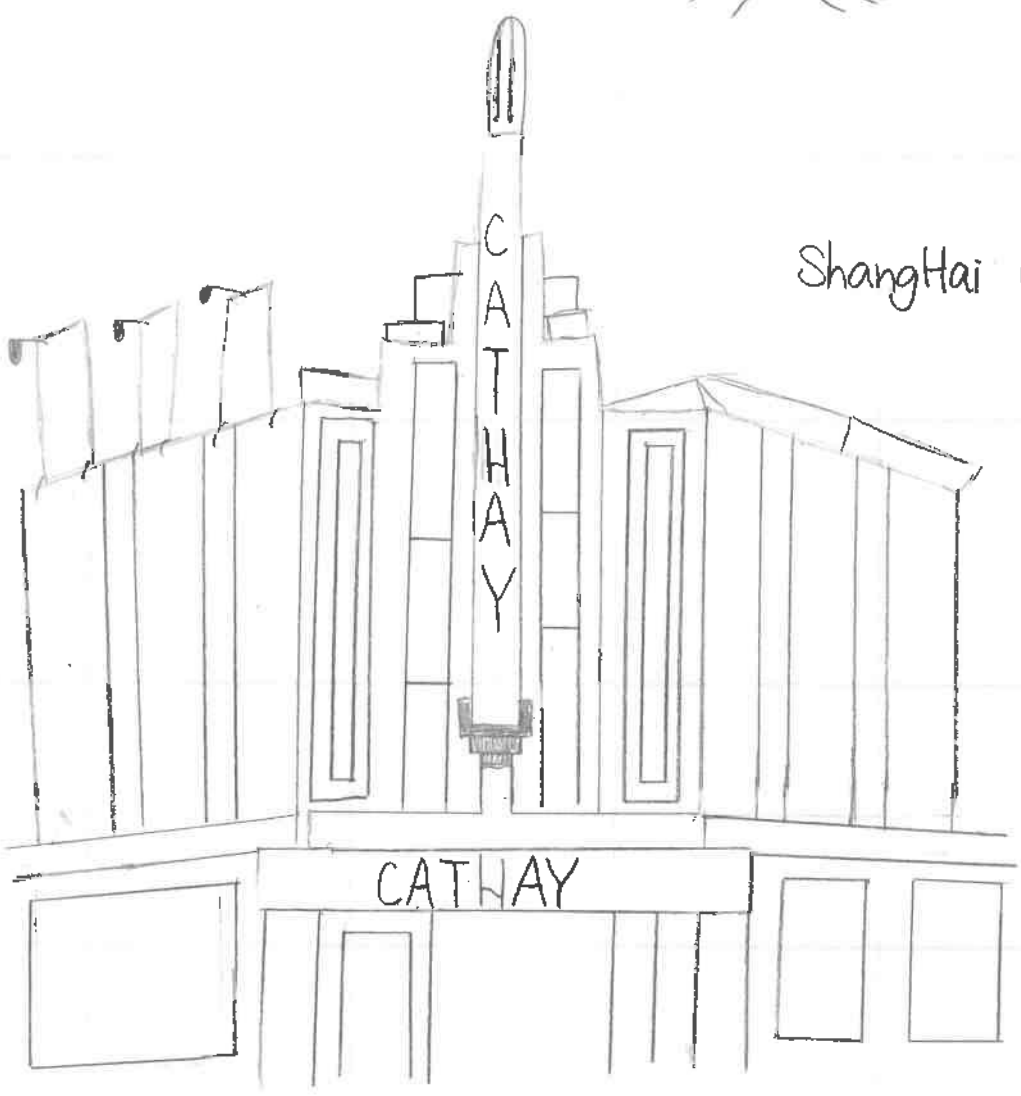
Ruhlmann Macassar



Barcelona chair

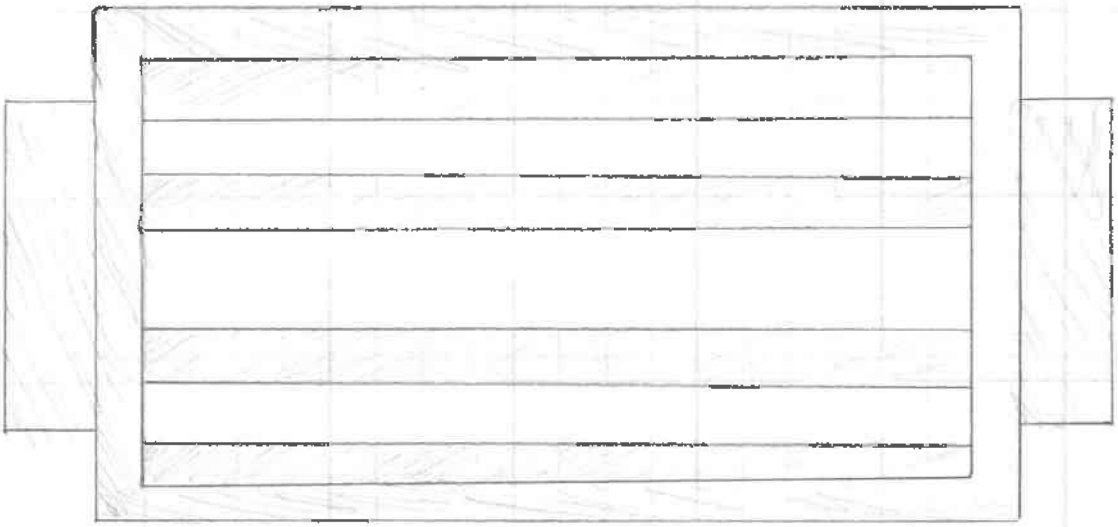


ShangHai CATHAY Theatre

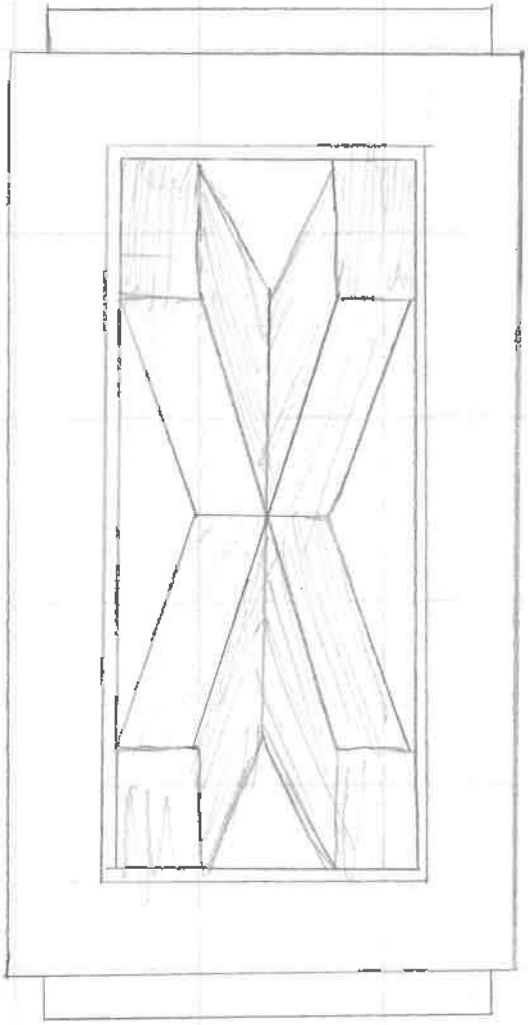


Art Deco Sketches

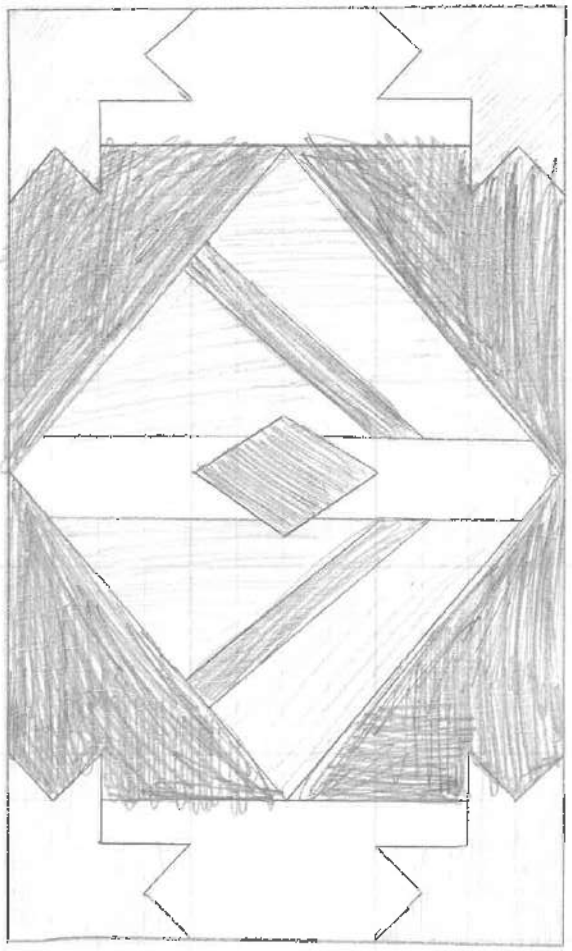
Tray 1 Tray

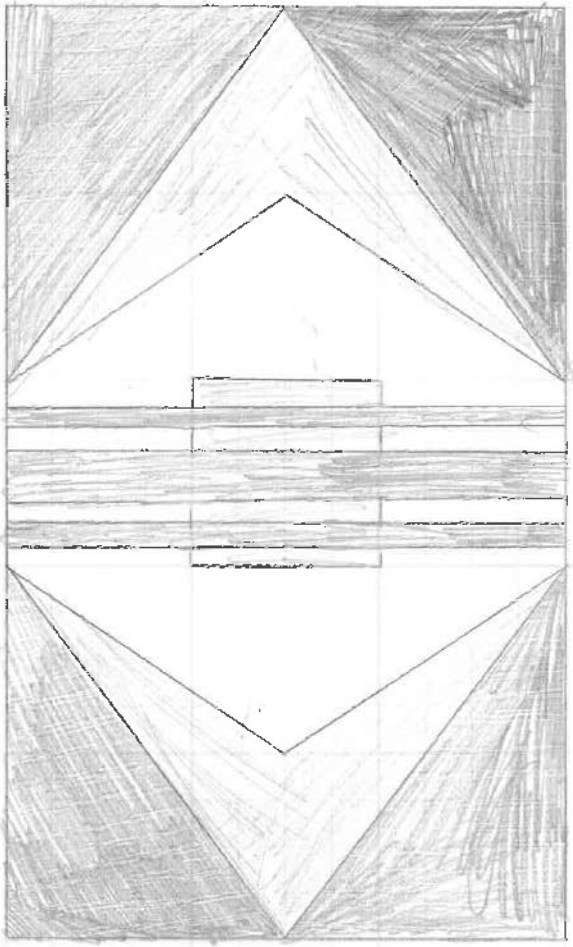


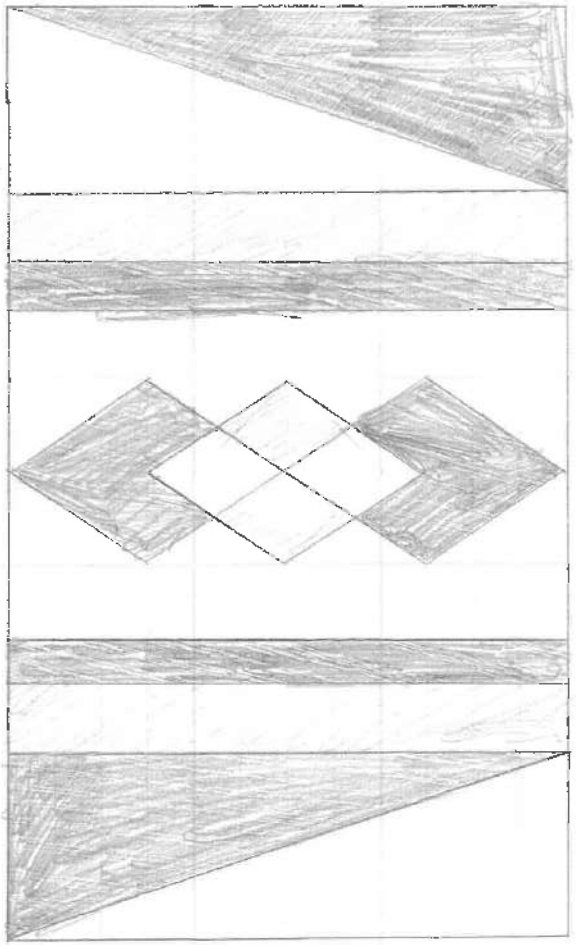
Tray 2 1st DIBS - marquy tray

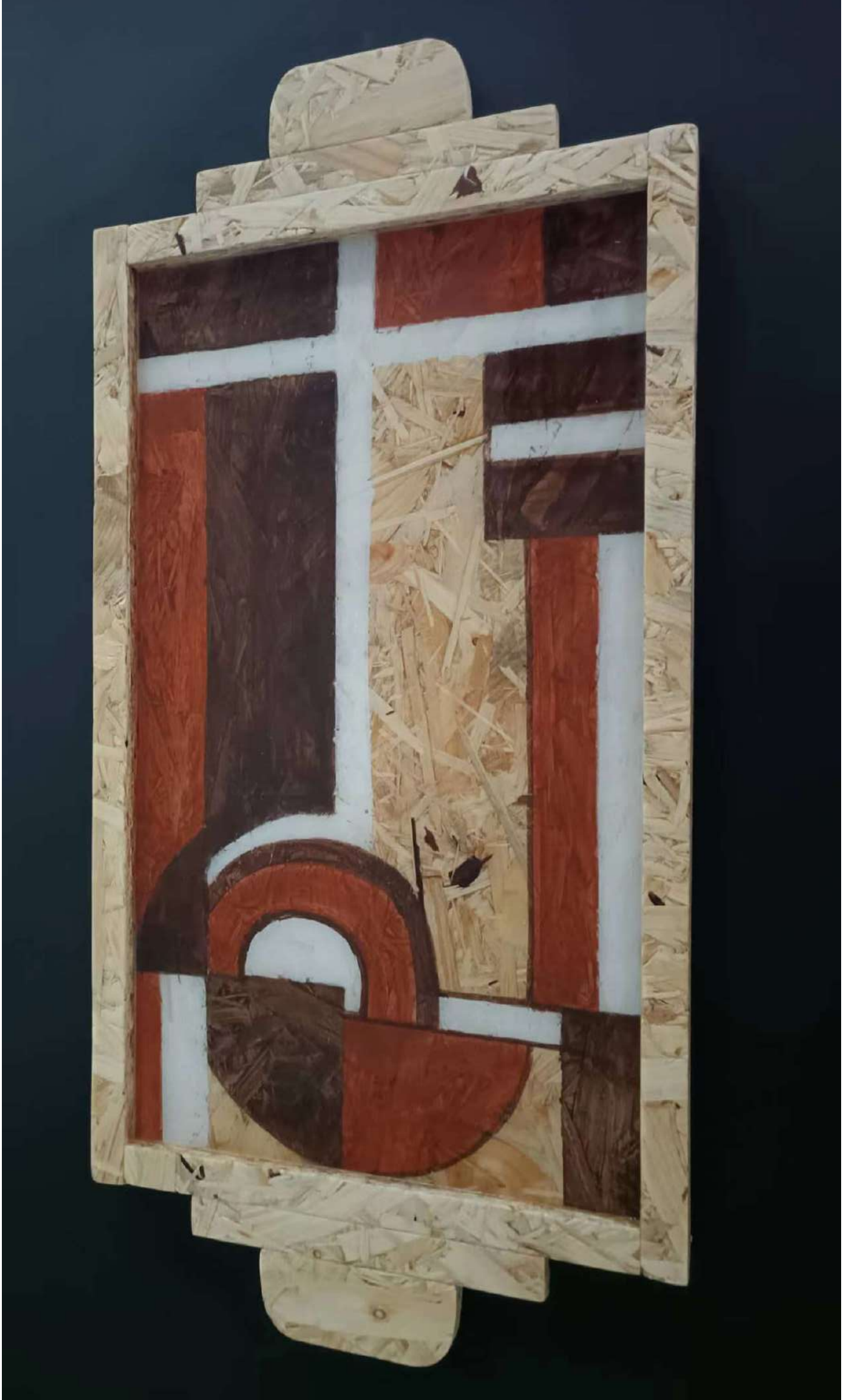


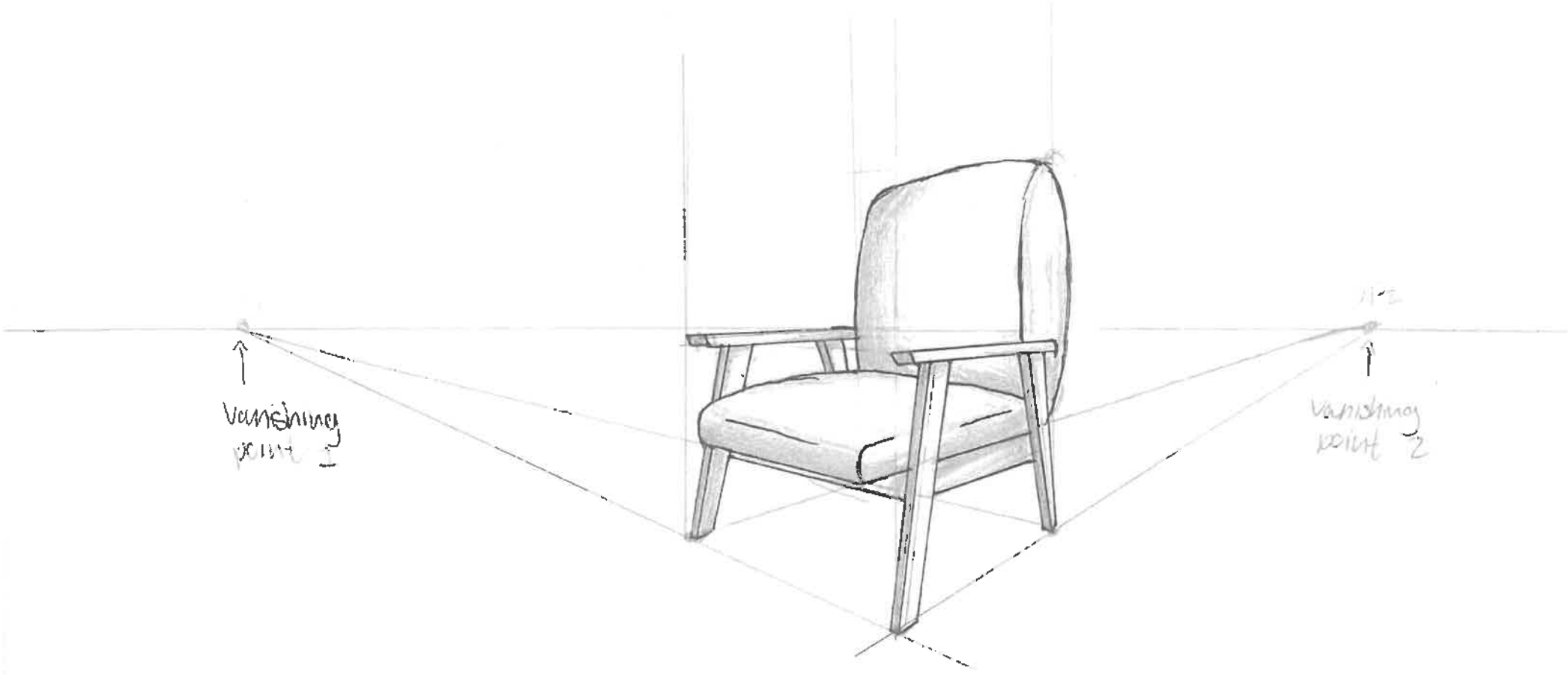
ART DECO SKETCH

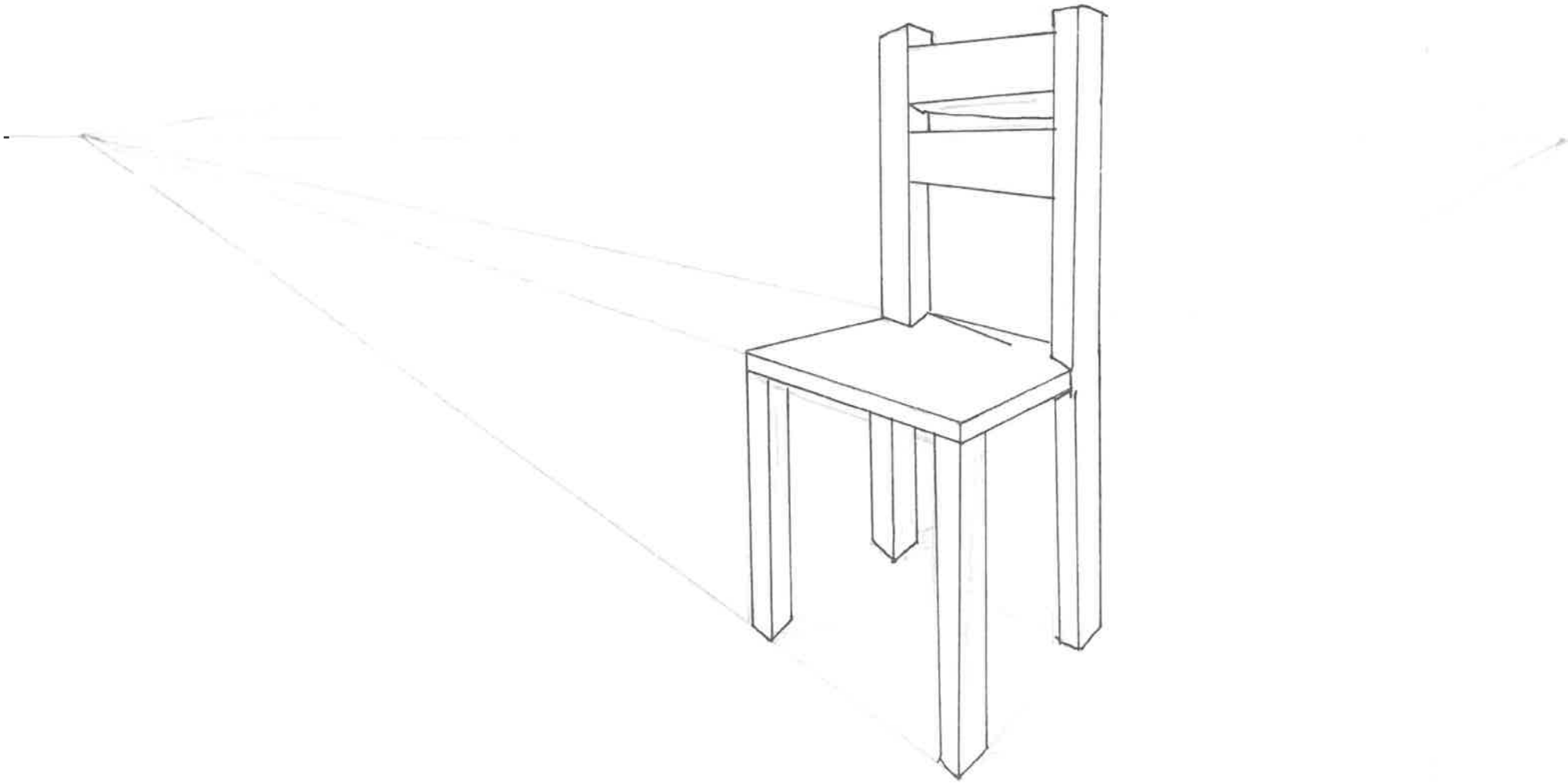


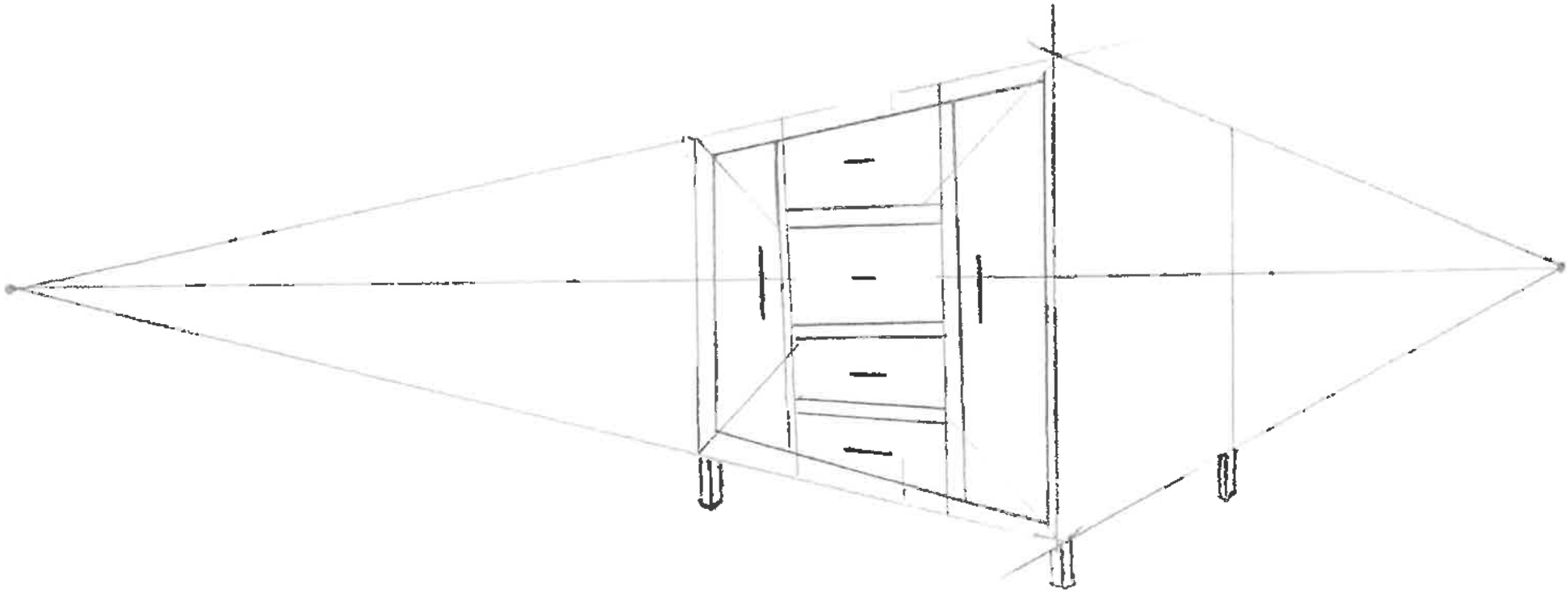






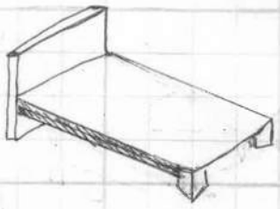

Vanishing
point 1
Vanishing
point 2





FLAT PACK furniture

1. Flat pack furniture is a ready-to-assemble piece of furniture, they are popular because they are convienient and affordable. This type of furniture are produced with flat parts, made to be easier to ship and deliver. So they buyer would have to put together the parts themselves.



Bed

2. A scale model is the exact model of something, but smaller. It is directly shrunk. For example, if a scale model is 1 meter, and the original size is 2 meters you would x2.

3. A prototype is the earliest, first design of something, or a model of a proposed product.

4. Flat pack furniture are typically made from solid wood, medium-density fibreboard, or chipboard.

5. Flat pack furniture is popular because it is very convienient and affordable (as stated before).

6. Ikea's annual revenue is 47.6 billion euros. Highlighting the popularity of their products.

7. The ideal table for 4 is 36 inches (91cm) to 40 inches (101.6cm) in width, and about 48 inches (120cm) in length.
The ideal size for a chair is 45cm off the ground for seat height, 35cm for seat width, 50cm for the backrest, and 35cm for backrest width.
The ideal size for a shelf is about 180cm in height.

8. Anthropometrics is the relationship between the design of furniture and humans, and the 90th percentile is the big group of people that are average-sized.

9. Even thought flat packs are popular for their minimalism and affordability, they are rarely recycled. According to treehugger.com, flat packs "promotes a culture of wastefulness and overconsumption." and states that they "lacks uniqueness"

10. CNC machines, or computer numerically controlled machines, are electro-mechanical devices used to manipulate tools around a varying number of axis, with high-precision per instruction from a computer program.

11. A laser cutter is a machine that uses a high-energy focused laser beam to cut through various types of material.

Flat Pack Furniture
In this unit, you are to create a scale model (doll house size) piece of flat pack furniture. You will create a set with chairs, a table, and a shelf.

Inquiring and Analysing
What is flat pack furniture? Draw an example. What is a scale model? What is a prototype? What materials are typically used for flat pack furniture? Why is flat pack furniture so popular and marketable? What is the annual revenue of Ikea? What are the ideal sizes for a table, a chair, and a bookshelf? What is anthropometrics and what is the 90th percentile? Is flat pack furniture recyclable? What is a CNC machine? What are vectors? What is a laser cutter?

Developing Ideas
Sketch and example of flatpack furniture (a table) and reference where it came from. Next sketch three ideas for a piece of furniture. Use your isometric drawing skills. Then sketch each individual piece that will be required to make the furniture piece. Make sure that your furniture is interesting and beautiful. Create a name for your furniture's style. It needs to be competitive in a broader furniture market! Include the sizes for your furniture and the individual pieces.

Creating a Solution
Using Adobe Illustrator, create each piece for the scale model of your furniture design. The pieces will eventually be cut out with a laser cutter. The document should be set up to 450x300mm. This is the size of the wood for the laser cutter. All of your pieces must fit onto this piece. I recommend using the grid and snapping to the grid.

Evaluating
Describe the theme of your furniture and how it permeates your design. What makes your furniture more competitive/marketable to other furniture designs? What is the user experience like when using your furniture? Reference the demographics your furniture is marketed to. Explain, step-by-step, the best way of making scale model furniture for future students. What could be improved about your furniture (explain 3 things)? Write a marketing advertisement for Taobao to sell your furniture.

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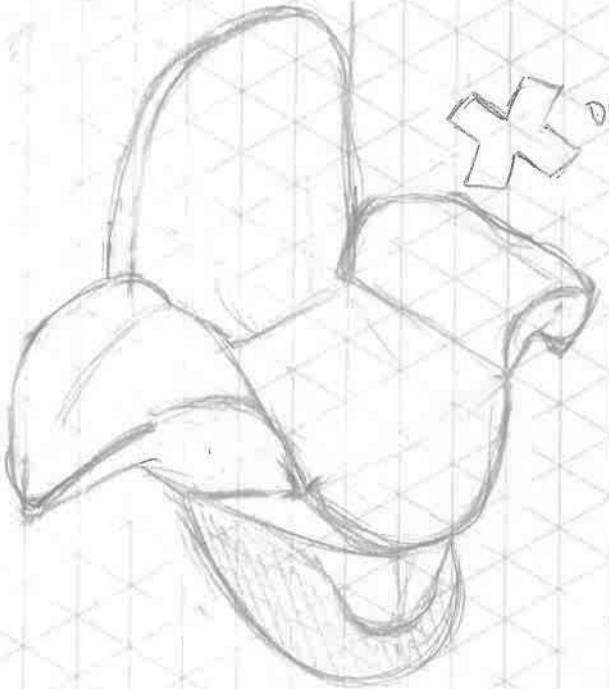

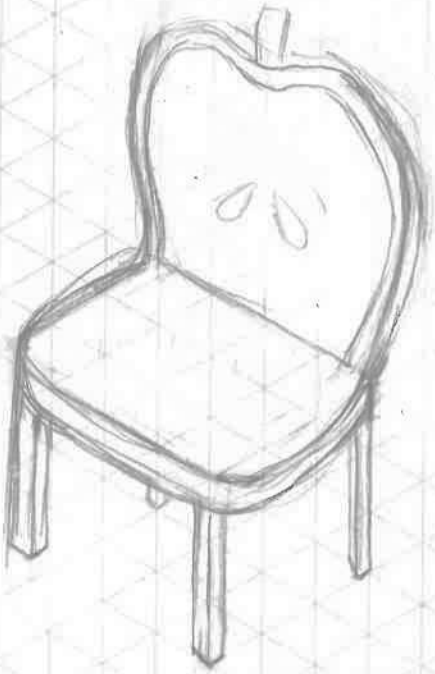

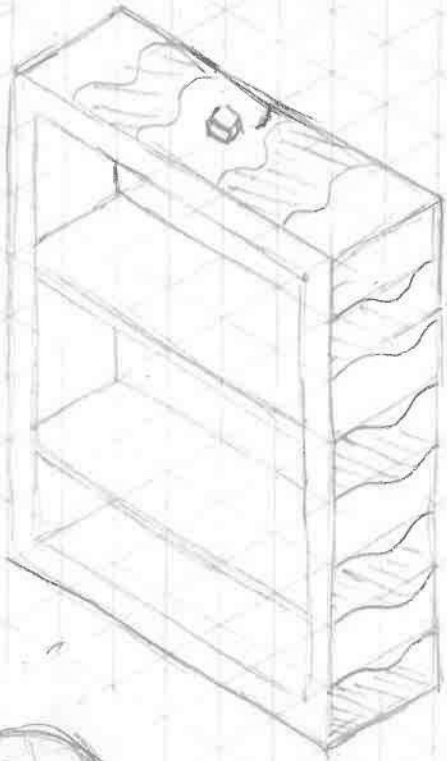

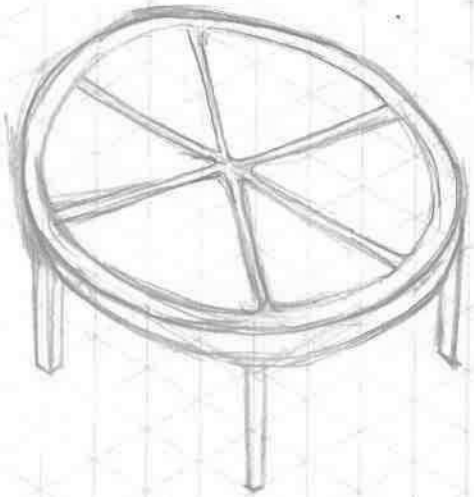

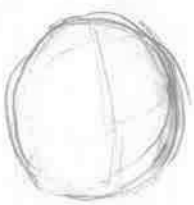

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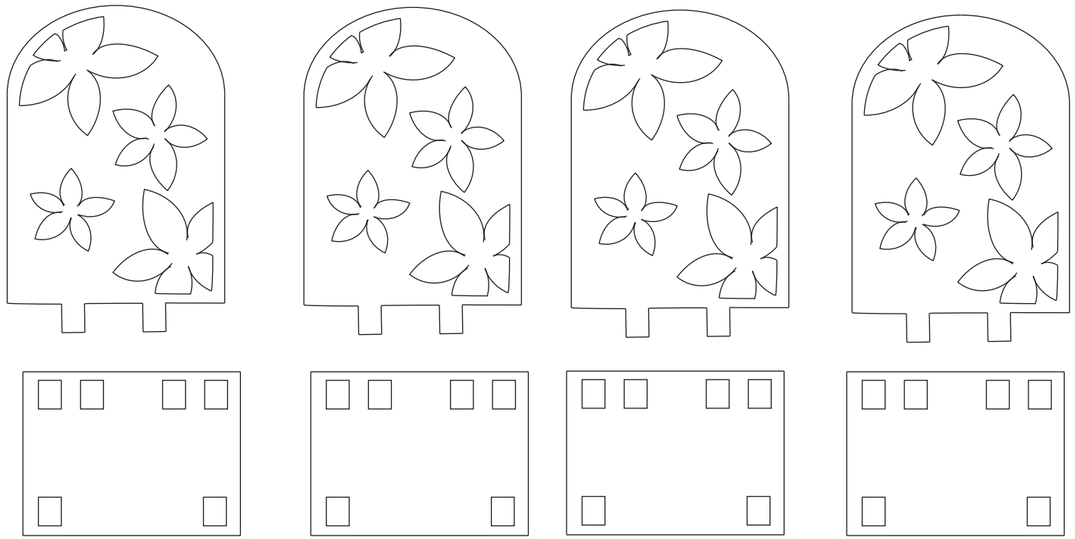
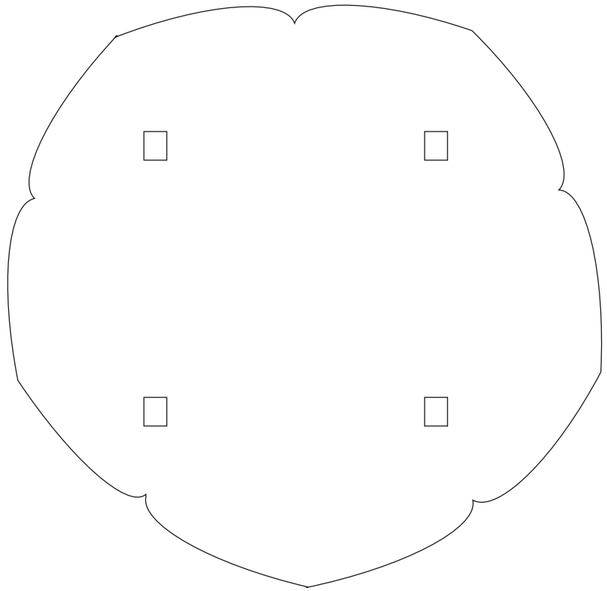
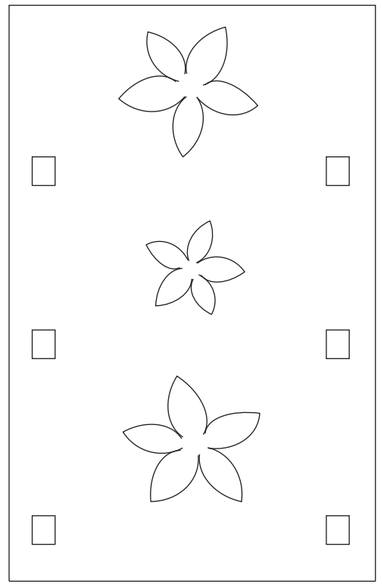
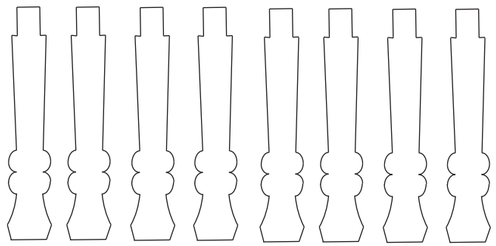
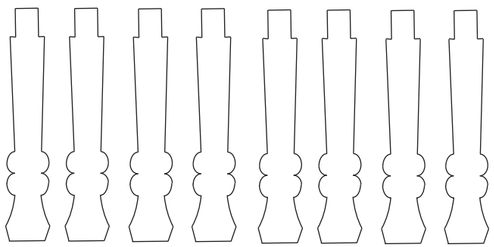
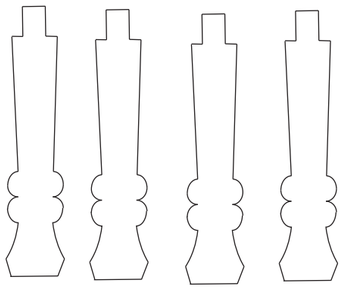


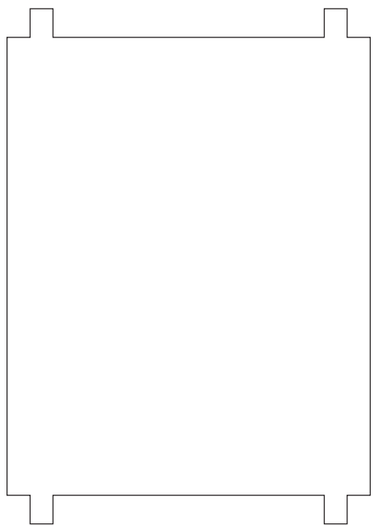


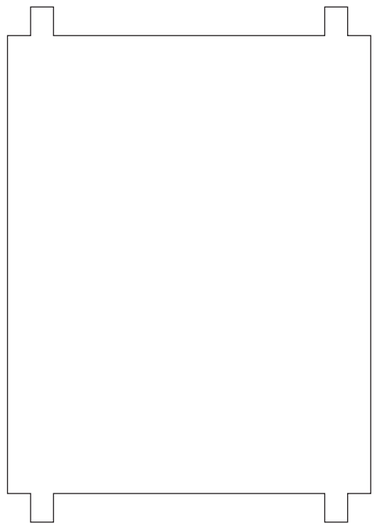


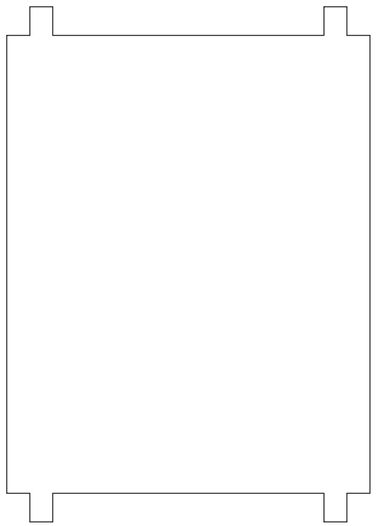












FLAT PACK EVALUATION

Describe the theme of your furniture and how it effects your whole design.

My furniture has the theme of flower. So you can see that there are holes on my furniture in a flower shape.

What makes your furniture more competitive / marketable than other furniture designs?

It has a nice design, and it is more useful but at the same time it look nice.

What is the user experience like when using your furniture?

Comfortable, cozy, useful, and stable.

Reference the demographics your furniture is marketed to.

It is marketed towards women or people who likes flower.

Explain, step-by-step, the best way of making scale model furniture for future students.

First, plan out your theme and design. Then, have the size of what you want your prototype of furniture in your mind, the Adobe illustrator's grid is one big grid is 1 cm in reality. Another tip is don't turn or change the size of the female, male parts. After finishing the design, send it to the teacher for laser cutting. When putting your parts together, firstly count if there is any missing pieces, if there is tell the teacher. Gluing them together is one of the most important steps, check if it goes straight in, not tilting to one side. Let it dry and now you have a finished prototype!!

What to improve:

1. The part where you sit on in a chair could be bigger for my design.
2. The legs could be more straight when sticking them in
3. My shelf could be smaller, or at least smaller then the table.

Advertisement for Taobao: "4 chairs, 1 table, and a shelf, this is what you call a home! cozy and comfortable!

I liked putting the parts together most, it was like putting legos together.

Candy Dispenser

Inquiry and Analysis.

- The annual revenue for candy is $36.9 billion.
- In America, the most popular candies are the Reese's Peanut Butter Cups, M&Ms, Snickers and Hershey's Kisses.
- Surprisingly, 35 to 44 year old people was the largest age group in the United States confectionery Market.
- Gumball machines.

- The best color for candy are bright colors, such as red and blue.
- Candy is addictive because the sugar consumption triggers the release of dopamine in the brain.
- Candy is shown in cartoons, commercials and more to get the childrens' attention and advertise it to them.

- A calorie is a unit of energy that is often used to express the nutritional value of foods.
- A piece of candy (1oz) has 24 calories in it.
- Eating too much candy can cause you to eat too many calories overall, which leads to weight gain. Obesity and overweight can cause health problems.
- A mason jar is a canning jar that is used in home canning to preserve food
- A classic design is an industrially manufactured object with timeless aesthetic value.
- Softwood has a lighter color than hardwood. It is easier to cover with paint or stain because is has less pronounced grains.
- The most common softwood is Douglas fir, while for hardwood, the common ones are mahogany oak and maple.

Candy Dispenser
Using your typography skills, write candy dispenser at the top of the page.

Inquiry and Analysis
Market data: What is the annual revenue of candy? What are the most popular candies? What age groups enjoy candy the most? What are the most popular retro candy dispensers (draw one)?
Psychographic Data: What color is best for candy? Why is candy addictive? How is candy marketed to children?
Physiological Data: What is a calorie? How many calories are in an average serving of candy? Why is it not healthy to eat too much candy?
Materials: What are mason jars? What were they used for? What is "classic design"? What is the difference between hardwood and softwood? What kind of wood is most commonly used?

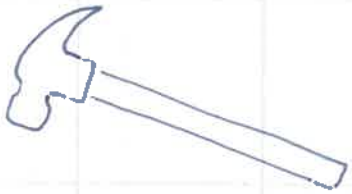
Developing Skills
We will need to use numerous tools to create our desktop candy dispenser. Learn the definitions for hand tools and power tools and take the vocabulary quizzes.

Creating a Solution
Follow the steps in the PowerPoint to make a candy dispenser using wood, a mason jar, and basic tools

Evaluation
What could be improved about your project? What was the most difficult part of construction? How many ounces of candy does your dispenser give each use? How many calories is that amount of candy? What percentage of calorie intake is that serving? How many servings would you need to reach one day's calorie intake? Write an advertisement selling your candy dispenser on Taobao. Try to convince the buyer that their candy intake is more important than their health.

CTE VOCABULARY

Hammer: a tool with a heavy metal head mounted at a right angle at the end of a handle, used for jobs such as breaking things and driving in nails.

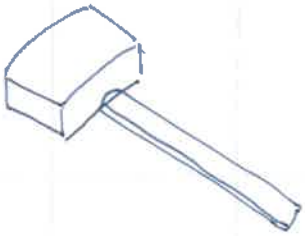


Nails: a slender metal shaft that is pointed at one end and flattened at the other end and is used for fastening one or more objects to each other.

Files: a hand tool used to remove trace amounts of material from a workpiece. Common in carpentry, metal-working, and other similar trades.

Chisel: a sharp edged a hand tool used for carving, cutting, shaping hard materials such as wood, stone or metal.

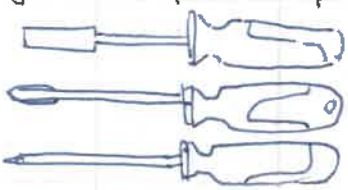
Mallet: a tool used for imparting force on another object, often made of rubber or wood, and usually has a relatively large head.



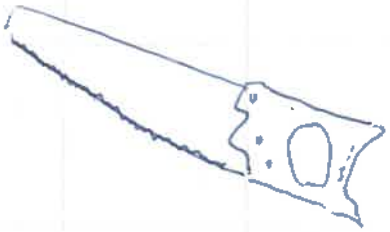
Drill: a power tool that uses a quickly rotating drill bit. It is used to create holes in various materials, such as wood, metal, and plastic.

Screws: are in externally helical threaded fastener capable of being tightened or released by a twisting force to the head. The most common use is to hold objects together.

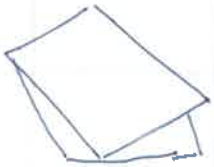
Screwdriver: this hand tool is used to screw and unscrew screws. It consists of a handle, a shaft, and a tip or head that fits into the screw head. They come in different types depending on the shape of the tip and the screw head.



Hand saw: these tools have been around for thousands of years. They are used to cut blocks of wood into different shapes.



Sandpaper: this material consists of sheets of paper with an abrasive substance glued to one face.



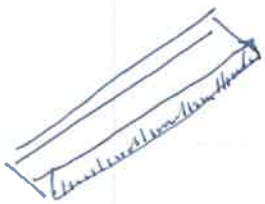
Wood glue: liquid, water-based adhesive used to tightly bond pieces of wood together.

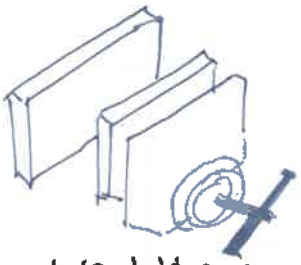
Craft knife: this tool is ideal for cutting out intricate and detailed shapes due to its sharp blade. Used to cut paper and polystyrene.

Safety goggles: sealed barrier around the eyes, offering enhanced protection against dust, debris, and chemical ~~sto~~ splashes.

Apron: a protective garment worn over the front of ones clothes and tied at the back.

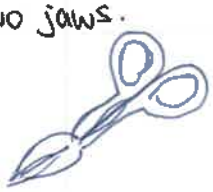
Safety ruler: used for cutting straight lines, come with finger guards that protect your fingers, and have a grip on the bottom.





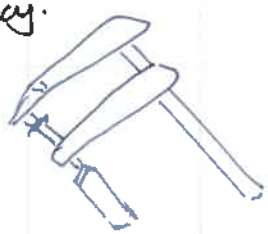
Bench vice: used to hold a workpiece stationary on a workbench. It is an integral tool in many wood/metal working, and other projects.

Pliers: hand tool, allow user to firmly grip an object, like a nail or wire. It can be tightened or loosened, twisted or cut. 2 handles, a pivot and two jaws.



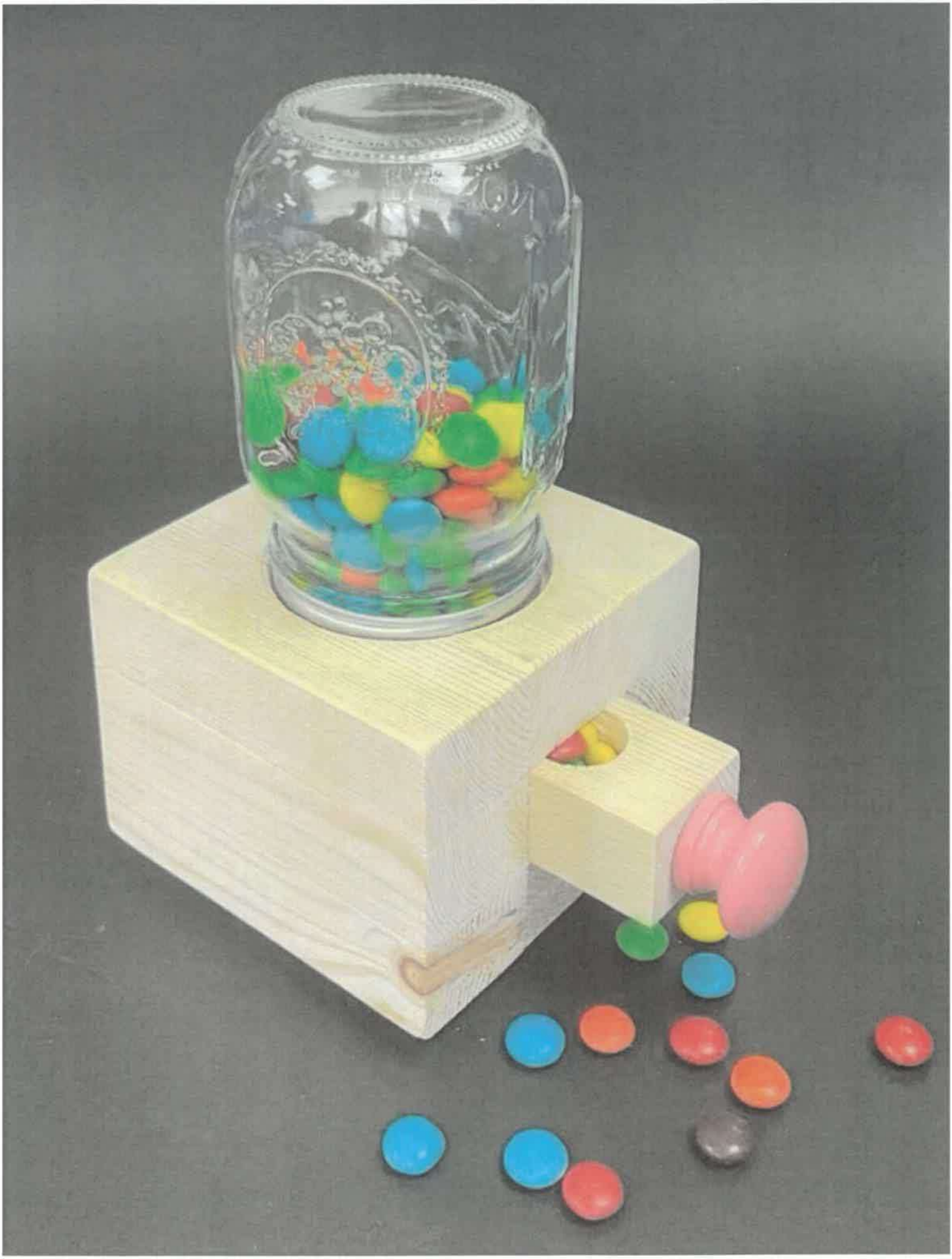
Metal ~~snipe~~ snips: a hand tool specifically designed to cut sheet metal.

Emergency Stop: ~~red~~ red buttons around the room to stop all machinery during an emergency.



Clamp: this tool consists one bar and 2 horizontal jaws, used in wood/metal working, to hold pieces together.

Candy Dispenser: Production Plan

Bill of Materials
Softwood (pine) 30x40x120mm (9 pieces) Wood glue Small nails 15mm (4 pieces) Mason jar and lid Cabinet knob Plastic feet (4 pieces) Dowel rod 15x3mm Wood screws 75mm (4 pieces)

Step Number	Required Tools	Description	Safety Precautions
1	Saw	Cut wood into nine 120mm pieces if not already cut.	Wear glasses, apron, and gloves for protection. Tie hair back.
2	Paintbrush	Brush wood glue onto 30mm sides and stick three pieces together forming a 120x120mm square. Do this twice. Leave three pieces of wood unglued.	Tie hair back
3	Drill, 15mm drill bit, clamp	Drill a 15mm hole through one of the unglued wood pieces. The hole should be 30mm from the end of the piece in the middle. Use clamp to hold wood in place.	Wear glasses, apron, and gloves for protection. Tie hair back.
4	Drill, 3mm drill bit, mallet	Drill a 3mm hole 10mm deep on the other end of the wood piece. Tap dowel rod into hole with mallet.	Wear glasses, apron, and gloves for protection. Tie hair back.
5	Router with 8mm bit	On one of the 120mm square pieces, cut a straight line down the middle of the piece 60mm long in the middle. Use a guide to ensure a straight line.	Wear glasses, apron, and gloves for protection. Tie hair back.
6	Drill, 75mm drill bit, 15mm drill bit, clamp	On the other side of the same 120mm piece, drill a 75mm hole in the middle 5mm deep. At the front of that hole, opposite the side of the router line, drill a 15mm hole through the wood. Use clamp to hold wood into place.	Wear glasses, apron, and gloves for protection. Tie hair back.
7	Paintbrush	Glue all the pieces together except the middle piece with the hole and dowel rod. It should be a 120x120x90mm block.	Tie hair back
8	Sandpaper	Once glue is thoroughly dried, sand the block into an even piece with soft edges. Sand down middle piece so it slides easily. Use a belt sander if one is available.	Wear glasses, apron, and gloves for protection. Tie hair back.
9	Drill, long 3mm drill bit	On the opposite side of the block from the 75mm hole, drill 70mm holes into each corner 15mm from the corner. Attach plastic feet with 75mm screws into each hole.	Wear glasses, apron, and gloves for protection. Tie hair back.
10	Drill, 1mm drill bit, hammer	Place mason jar lid into 75mm hole. Perforate the lid with 1mm drill bit in four separate places. Tap nails through the holes into the wood to secure the lid.	Wear glasses, apron, and gloves for protection. Tie hair back.
11	Drill, 3mm drill bit	On the end of the central piece that slides, drill a 20mm hole in the middle. Screw cabinet knob onto the piece. Screw mason jar onto lid. Place small candies of choice into mason jar beforehand.	Wear glasses, apron, and gloves for protection. Tie hair back.