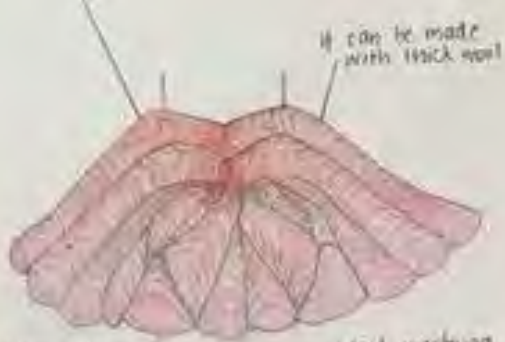


The background features several circular and semi-circular patterns in muted colors (olive green, brown, red, teal) that resemble biological structures like leaves, shells, or cellular patterns. The text is centered over these patterns.

# Year 8 Biomimicry Design Project

Initial ideas



Wool physical properties:  
 semi-permeable so easily absorbs up to 30% moisture, poor conductor of heat but good insulator, dense material, not fusible.

Wool working properties:  
 extremely strong, tough, malleable, not ductile.



Gold physical properties:  
 good conductor of electricity and heat, large density, fusible, can absorb heat, some light but not water.



Gold working properties:  
 malleable, ductile, not elastic, soft/not tough.

gold and the leaves can be multi-colored glass

accusory

Silicone handbag with the form of a ladybug and a zipper in the middle

Silicone physical properties:  
 absorbs little moisture, no melting point, absorbs light, density of 2.329 g/cm<sup>3</sup>, not very fusible, do not conduct electricity and low thermal conductivity.



Silicone working properties:  
 low tensile strength, poor wear + tear properties, malleable, not ductile but it is elastic.

extra



this bucket hat could be and the inspiration of this enamelron changes its one on the hat to re

Cotton physical properties:  
 absorbs moisture, lightweight, fusible.

Olivia J

yellow and black stripes like a bee

Pattern like beehive

transparent appearance which is what we need to represent the bee's wings using fabric

- quite lightweight which is good for sleeves
- embroidery on the sleeve to get the details

main body of dress is silk

- has continuous filament fibres for a smooth look
- soft and shiny-giving it an expensive look
- drapes well

the dress will naturally have ruffles

neon colours - flowers attract bees

netting - transparent but adds texture to dress



necklace chain taking the form of leaves

pendant inspired from snail shell

- hues of brown
- spiral pattern
- can be made from acrylic, which is easy to cut/comes in many and finishes well

- can be made from copper, which can oxidise to turn the green colour

- welds easily so you can create the chain



- peacock inspired Purse

gold colour gives it a more formal look

peacock feather attached to the zip

- adds a matte and nature-based element

go well with most outfits because of the greens and blues - represent peacock feather



- cheetah print high heels

perfect for workplace and even parties

represents a cheetah's tail

fur with cheetah print

- mixes biomimicry with modern fashion

beige colour (natural)

leather



Ayesah A

In the dress because it smooth and slightly shiny which is how I want the skirt part to look. Also it holds its shape well, which will help keep the butterfly upright.



leather made of different colors of paper

black paper skirt

Physical properties - smooth, shiny and light weight.

Working properties - holds its shape well and won't become distorted over time.

Leather - more light because it is more used for wedding gowns and coming down to a white fabric butterfly skirt.

Material -  
by felt

I decided to use leather for the belt as it is durable and strong. I decided to make the leaves out of cotton so that they would be slightly plummy and not as heavy.

Physical properties (leather) - soft, resistant, soft - doesn't wear.  
Working properties (leather) - strong and flexible.

Physical properties (cotton) - moderately strong, easy to dye different colors.

Circle and color contrast to allow eye adjustment



leather belt strap

Working because it is working strong. Also, this will not put in the wrong - it will be then there and can easily be pierced.

Physical properties - shiny, well - when available.

Working properties - my double



shiny made of felt



shiny

also seen -

Deciduous wood - I decided to use leather for the bag because it is durable and can hold its shape well. I chose felt for the deciduous pattern because it is shiny, plummy and I wanted it to be smooth.

Physical properties (leather) - soft, resistant, quite smooth.

Working properties (leather) - strong and flexible.

Physical properties (cotton) - moderately strong, easy to dye different colors.

Bea W

Hand, brittle  
 Shiny  
 available in a wide range of colours, so great for craft

Working properties -  
 Resists weather well  
 Can be cut and polished well

Moon - Silver  
 Physical -  
 has a shine  
 quite soft

Working -  
 ductile  
 malleable  
 Stable in oxygen and water - won't react



Physical - light weight  
 Shiny  
 Working - doesn't react or tarnish

Sun - gold  
 Physical properties -  
 has a shine  
 a relatively soft material, usually hardened by alloying with copper or silver.

Working properties -  
 malleability - Capable of being shaped or bent.  
 a dense material  
 doesn't tarnish easily.

Cotton  
 Physical properties -  
 Grows on a cotton plant, fibres are combed and spun into a yarn

Working properties -  
 Takes dye well  
 soft material  
 strong and absorbent  
 recyclable



Lace  
 Physical properties -  
 delicate  
 Open weave available in many patterns

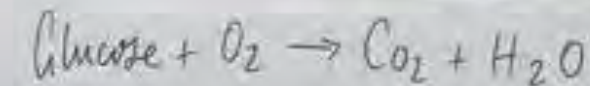
Various properties can be achieved depending on the fibres used.

Working properties -  
 lasts well, however must be cared for properly.

When light is shone on the garment, parts of it will turn green. The green colour is due to a pigment called chlorophyll, which absorbs light energy. Cotton absorbs water well.

# Lunar eclipse necklace

# Photosynthesis



Complementary Processes

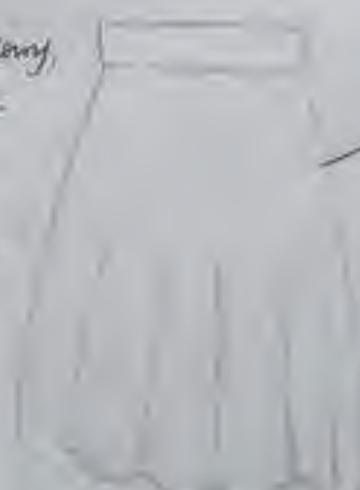
Silver  
 Physical properties -  
 has a shine

Working properties -  
 malleable  
 quite strong and hard  
 Stable in oxygen in water - won't tarnish.



Working properties -  
 scratches  
 chemically  
 can't burn

# Tanmaya V



Silk  
 Physical properties -  
 Made from the cocoon of the silkworm  
 The only natural fibre that has continuous filament fibres rather than shorter staple fibres

Working properties -  
 soft and smooth

## clothing

I chose to do a wrap top inspired by butterflies. There is a repeated pattern on the material on the arms and the tie knot to represent this. I also drew a wrap top because it resembles the cable pillar wrapped in a cocoon before becoming a butterfly. This makes the top look more modern and chic.



The material is cotton as it is great quality and flexible and stretchy. The shirt is black with blue butterflies.

## jewellery

I drew a butterfly necklace. I chose the colour gold as I wanted this to be a chained necklace so the material would be metal which was gold plated to last longer. My inspiration was butterflies so I chose a more simplistic design.



## accessory



The quilted leather material resembles seashells and these indentations, I've also chosen to do gold embellishments which add to the bag to give it a classy and elegant look. The colour will also resemble seashells - nude, cream to give it a personal touch I added my initials (G.K.) to the middle.

## own choice

I chose a midi skirt for my own choice made out of silk for a lavish look and a lace trim at the bottom. I added a belt attached of people's choices to compliment the plaza look.

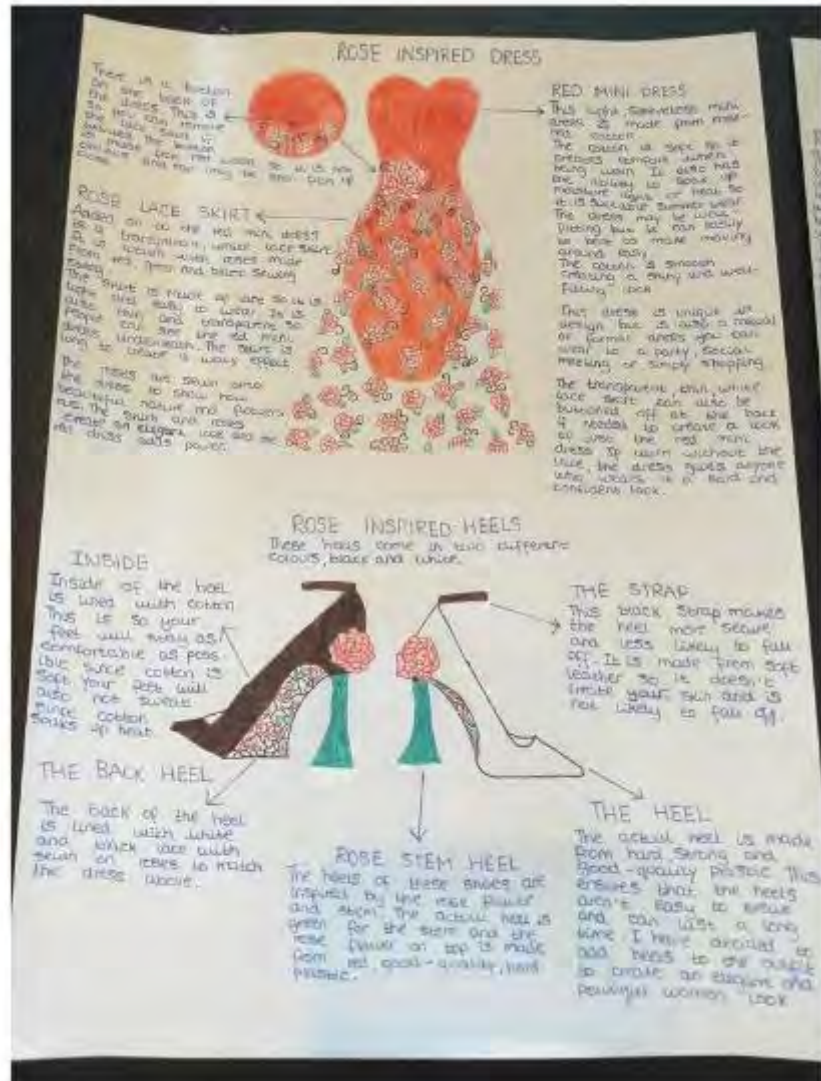


The skirt will be burnt orange and the belt, emerald green - these colours will go great together and be very appealing to the eye.

Guraman K



Sarah A



Lilly P



Rachael E



Flower  
inspiring  
to use  
to capture  
inspiring  
at school  
to colors



properties  
lightweight  
and absorbant

- Working properties
- Quite strong
  - Can withstand impact without damage
  - Durable
  - Aesthetic

Flower pattern steering wheel cover

It being quite strong and tough will ensure that it last for a long time and can't easily damaged.



It being all electric - my radio or will protect shielded from electrical shocks caused by a problem in the car colour availability.



Printed Leather

- Physical properties
- Heat insulator
  - Electricity insulator

- Working properties
- Quite strong
  - Quite tough

It being a good heat insulator and will protect the driver from burns

Yellow plain chignon fabric

- Working properties
- Corrugated card
  - Strong because of corrugations
  - Protection
  - Insulating
  - Poor heat conductor



It being very strong will mean that it will be easier to use with the intended composition so it will be harder to damage it



thermal poor conductor of heat

Working properties

- Very strong
- Very hard
- Quite tough

It being a poor conductor of heat means that there will be less chances of burning.

Sunglasses inspired dress

yellow chignon fabric at the back and the petals made from corrugated card.

Only that colors are used to make it resemble a sunglasses

Physical properties

- Chignon:
- Shiny, transparent appearance
  - Rough feel
- Corrugated card:
- Paper bonded to the outside
  - Tough feel

Working properties

- Chignon:
- Scratchy
  - Strong


So chignon being a sheer appearance will make it look more elegant. The corrugated card is helpful because it is to be used in models - the main purpose is it looking attractive

### LOTUS BAG

**Physical Properties** - made of dyed black leather with a thick layer of varnish to protect the skin, giving the bag a sleek and smooth finish.

**Working Properties** - firmness as the bag will not be floppy or easily deformed.

I chose leather for the bag material as it is known for its durability and good quality, the strength and resilience of leather makes it practical to me.




Labels: Lotus inspired, large lotus petals, LOTUS

### BUTTERFLY WING DRESS

**Physical Properties** - the black parts are made out of velvet giving it a shiny and extra smooth appearance, the dress should go up to your knees and it is a 3/4 length top.

**Working Properties** - it is a 3/4 length fitting dress on the top and for the bottom part it pops out and looks like butterfly wings!

I chose velvet for the black parts as velvet is high-quality and smooth.




### AVENUE DRESS

**Physical Properties** - made of satin and silk giving it a translucent and fresh look. The satin makes it especially smooth and the silk is sheer transparent.

**Working Properties** - the dress is simple and lightweight with layers of satin and silk.

I chose satin and silk from the marketplace as they are both light, airy, but give off a great look.




Labels: off shoulder top design, large dress with delicate transparent material draped over it

### BEE NECKLACE

**Physical Properties** - made of platinum silver, with two silver charms of a bee and a honey dipper that is smooth and gives a shiny appearance.


**Working Properties** - its durable but lightweight and is medium size and length, fitting nicely between the collarbones, it is ideal for all seasons.

I chose platinum silver as it will be affordable for normal buyers and it has charm for vintage lovers.

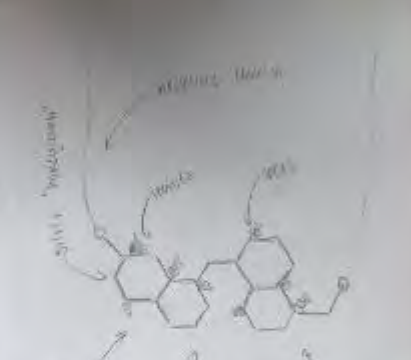


Labels: thin chain, bee charm, honey dipper charm


Sonia Y




Labels: collar, ruffled collar, pocket, button, top



Labels: beehive necklace, bees, honeycombs, to help with awareness for bees



Labels: top, skirt, purple top, green skirt

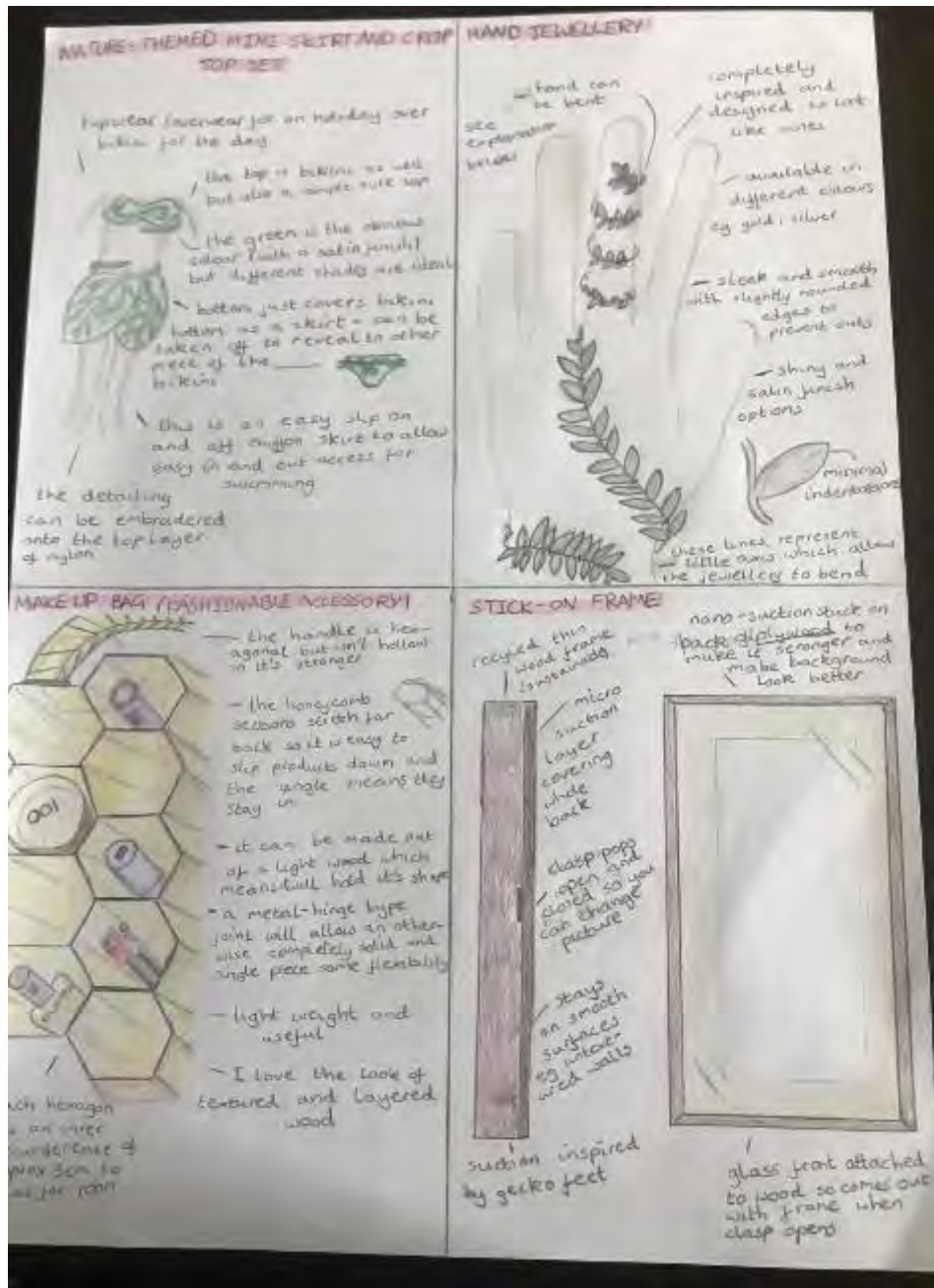


Labels: hat, black ribbon, working flexible blocks out sun, secure

Roselynn G



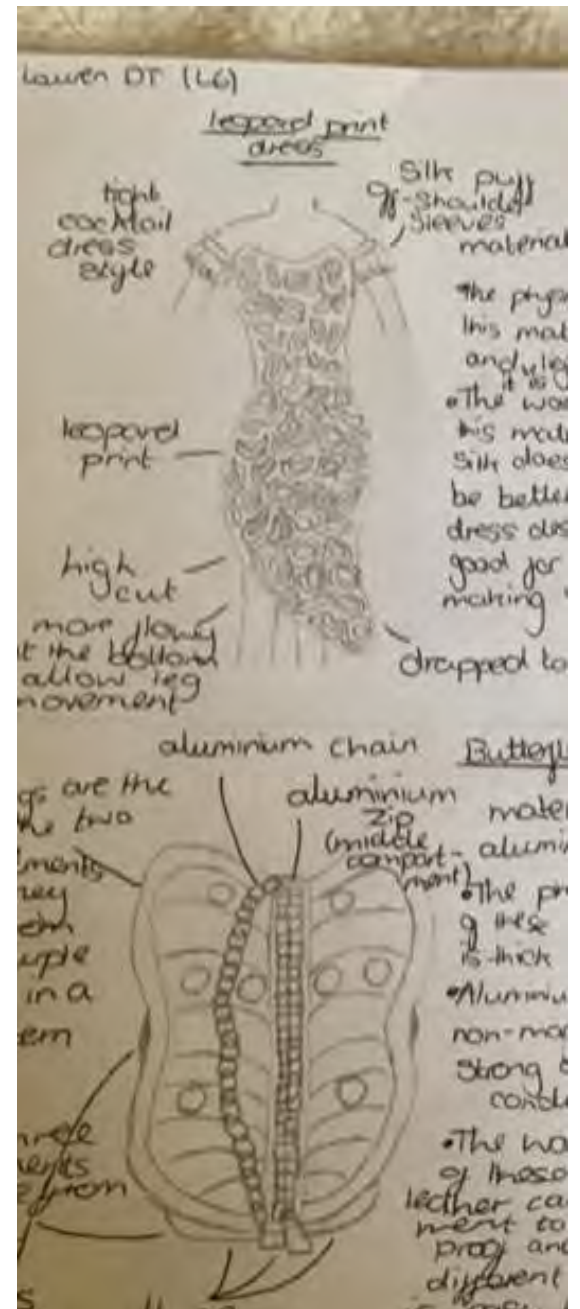
Abi T



Ellie W



Naomi N



Lauren R

Physical properties of wool:

- Low density
- Good insulator
- High resistance to degradation

Working Properties of wool:

- Long and resilient
- Warm in winter, cool in summer
- Shrinkage and felting

## CLOTHING



Physical Properties of wool:

- Low density
- Good insulator
- High resistance to degradation

## ACCESSORY

Physical properties of goat leather:

- Durable
- High resistance to staining
- Available in a wide range of colors and patterns



Physical properties of goat leather:

- Durable
- High resistance to staining
- Available in a wide range of colors and patterns



Physical properties of goat leather:

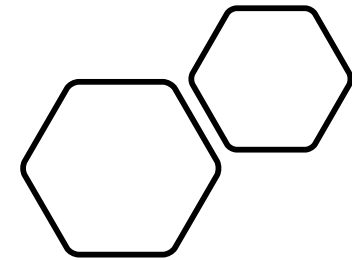
- Durable
- High resistance to staining
- Available in a wide range of colors and patterns

Giselle S



# Year 8 Biomimicry Design Project

Fashion Illustration



Jiayue Y



Maisie N







Srianna G



Jessica H

### PEACOCK PARTY

- yellow necklace
- dress to represent feathers



### FLOWER PHENOMENON

- petal headband
- skirt part to show petals



Ayesha A



Giselle S



Aarti B



Sharnali D



Lucy K



Guraman K



Nam V



Emily S

Chris K



Chris Kavouriadou 8-4



Chloe M





light blue needs to match the dress



leathers)



LULU B





Tarina J



The background features a collage of various biomimetic patterns. At the top left is a yellow, leaf-like pattern. To its right is a brown, spiral shell-like pattern. Further right is a red, intricate, branching pattern. Below these are a red, branching pattern on the left, a purple, radial, sunburst-like pattern in the center, and a teal, circular pattern of small circles on the right. At the bottom, there are partial views of green, leaf-like patterns.

# Year 8 Biomimicry Design Project

CAD Jewellery design

Zahra T



Claire Y



Georgia Watts Monday 3:18 PM  
Here are my ladybug earrings!

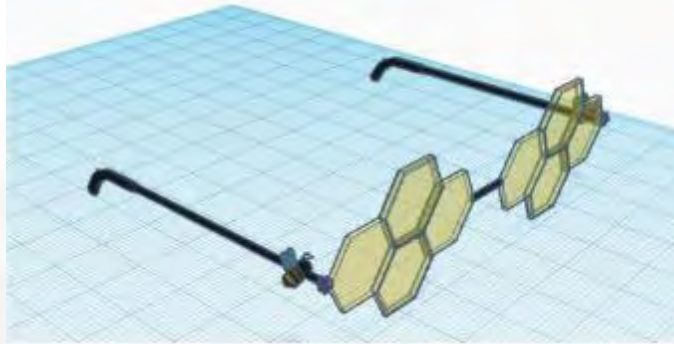
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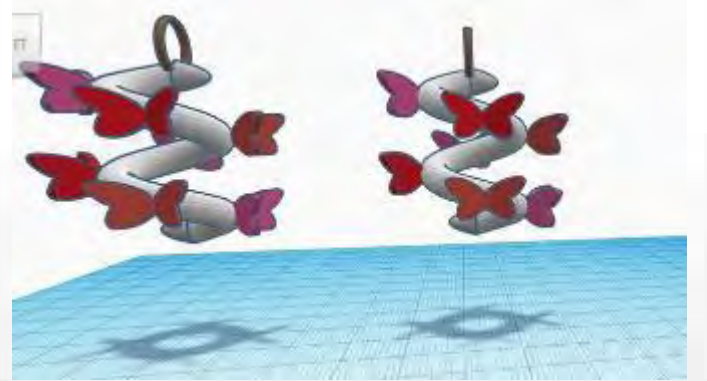
Georgia W



Lucy P



Yiya Z



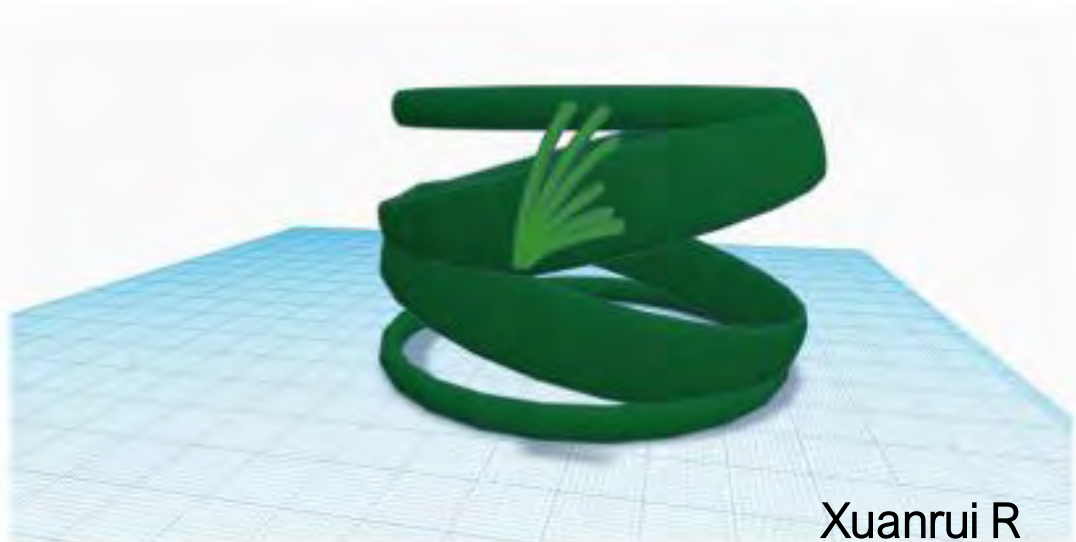
Srianna G



Chinonyerem U

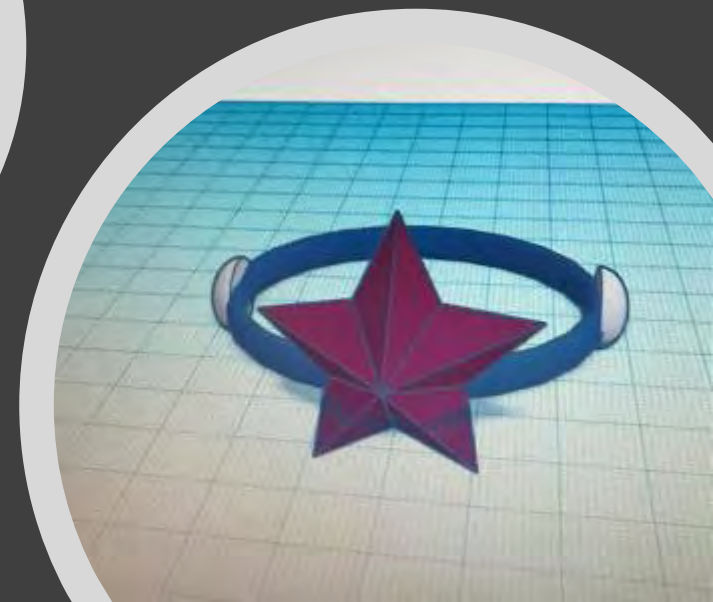


Samiha S



Xuanrui R

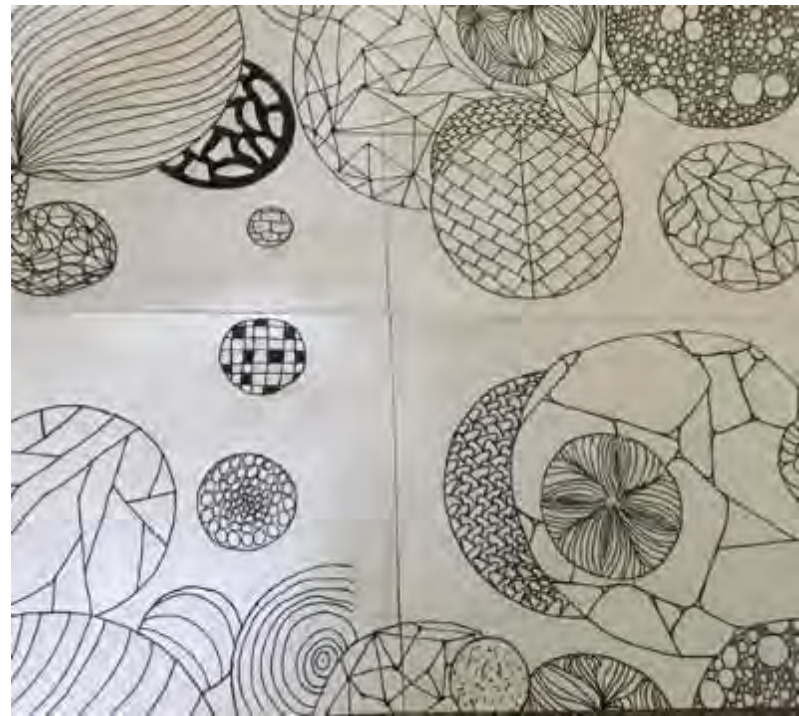
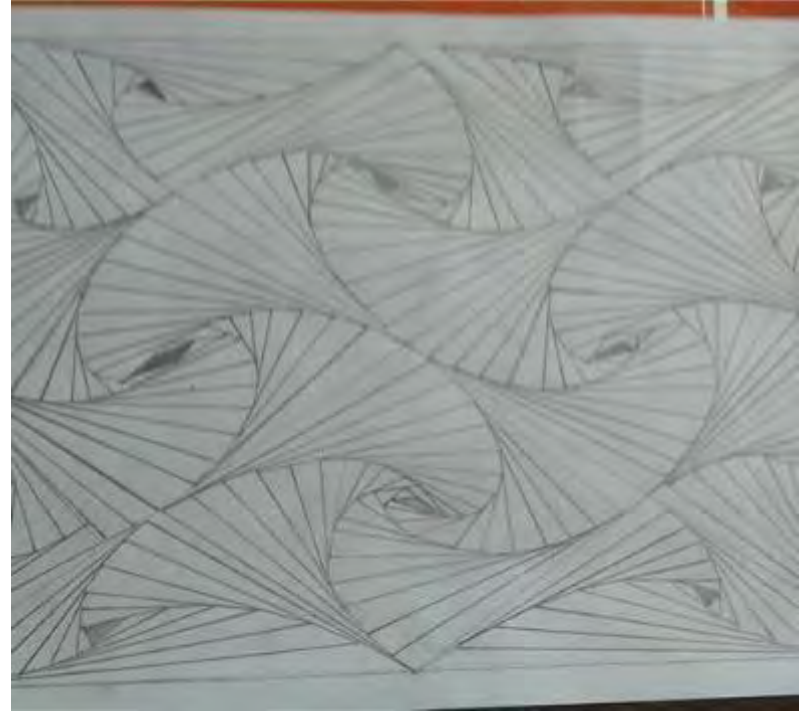
- Giselle S
- Jess E
- Miko E





# Repeat pattern fabric design

Maisie A  
Bea W  
Charley W  
Chinonyerem U





Eloise F



Cesci S