

Maya 6C

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Design the bag of the future

Lesson	Focus	Purpose & Activities
1	Introduction & Inspiration	Explore the evolution of bags, watch short videos, discuss current and future needs. Link to sustainability, movement, digital life.
2	User Needs & Brainstorming	Empathy-based task: who is the bag for? What problems will it solve? Mind-map ideas.
3	Sketching & Concept Design	Students sketch multiple ideas, annotate functions and materials. Peer feedback.
4	Smart Features & Biomimicry	Introduce smart tech (e.g. solar charging, GPS, auto-lock zippers). Nature-inspired design examples. Add to sketches.
5	Material Science & Sustainability	Learn about sustainable and recycled materials, textiles vs other materials. Plan what they'll use in their prototypes.
6-7	Prototype Building (Part 1 & 2)	Build the physical prototype using textiles and other recycled materials. Focus on creativity + function.
8	Testing & changes	Test prototypes (e.g. comfort, usability). Adjust design. Use feedback from classmates.
9	Presentation & Documentation	Prepare a short pitch: function, design, features, materials, sustainability. Optional: posters or slides.
10	Showcase or Submission Prep	Practice presenting. Record videos or photos for submission. Invite parents or other classes.

Lesson 9: Presentation and Documentation / Lektion 9: Presentation och dokumentation

1. Presentation Plan / Presentationsplan: List the 3 most important points you will talk about in your final presentation. / Lista de 3 viktigaste punkterna du kommer att prata om i din slutliga presentation.

- 1.
- 2.
- 3.

2. What is one thing you want to explain very clearly to the audience about your design? / Vad är en sak du vill förklara mycket tydligt för publiken om din design?

it clear that our bag has context straps
so it won't hurt shoulders
I want to make

Lesson 10: Showcase and Submission / Lektion 10: Uppvisning och inlämning

1. Final Reflection / Slutlig reflektion:

• What are you most proud of in your final design? / Vad är du mest stolt över med din slutliga design? I am proud of our context strap

• If you had more time, what would you improve or add next? / Om du hade mer tid, vad skulle du förbättra eller lägga till nästa gång? the communicate more and not be afraid to stop

2. Competition Criteria Final Check / Slutlig kontroll av tävlingskriterier:

• Active Life / Aktivt liv: How is your bag suitable for a person on the go? / Hur passar din väska för en person som är ständigt i rörelse? our bag is comfy in the straps and spacious inside

• Textile Part / Textilkomponent: What textile did you use? / Vilket textil använde du? we used polyester and fluff

• Smart Tech / Smart Teknik: What is your smart feature and how does it work? / Vad är din smarta funktion och hur fungerar den? our bag is thermal and has heat and we have a charging port so we can charge

• Sustainability / Hållbarhet: How did you make your design sustainable? / Hur gjorde du din design hållbar? we used old scrap fabric to reuse

Submission Checklist / Inlämningschecklista:

- This portfolio is complete. / Denna portfolio är fylld.
- Final photos/videos of our prototype are ready. / Slutliga foton/videoer på vår prototyp är klara.
- Our competition entry explanation is written. / Vår tävlingsförklaring är skriven.
- We are ready to present! / Vi är redo att presentera!

Name(s): Navya
Class: 6C

Lesson 1: Introduction and Inspiration / Lektion 1: Introduktion och inspiration

1. What is the main goal of the Chalmers competition? / Vad är huvudsyftet med Chalmers tävling?

The main goal of the chalmers competition is to make a futuristic bag and to get an idea of future needs. Also for students to be creative about sustainable materials.

2. List 3 key things you learned about the history of bags. / Lista 3 viktiga saker du lärde dig om väskors historia.

- They design of the bags changes over time to adapt to our needs.
- Different types of bags have been made for different purposes.
- Different materials were discovered ex animal skin to fabric.

3. Competition Criteria Check-In / Tävlingskriterier:

- Sustainability / Hållbarhet: What is one reason for using recycled materials mentioned in the lesson? / Vad är en anledning till att använda återvunna material som nämndes i lektionen?

Using sustainable materials is not only good for the environment because they have been used before but also they can also be very useful. For example polyester polyester is a material made of recycled plastic and fabric. Polyester is waterproof which makes it a good material to use for bags.

- Smart Technology / Smart Teknik: Name one "smart" feature a future bag could have. / Nämnen "smart" funktion en framtida väska kan ha.

A future bag could have many smart features one that i think could be efficient would be charger outlets inside bags.

4. Reflection (Teknik & SO): How do you think the design of bags has changed because of changes in society or technology? Give one example. / Hur tror du att designen av väskor har förändrats på grund av förändringar i samhället eller tekniken? Ge ett exempel.

The designs of bags have changed over time to adapt to our needs. The materials we use today like fabric or cloth are different based on what we used to use (animal skin). Also we have better equipment to make these bags (sewing machines). Not only that but we have developed different types of bags like gym bags and backpacks.

Lesson 2: User Needs and Brainstorming / Lektion 2: Användarbehov och idégenerering

1. Define Your User / Definiera din användare: Who are you designing for? / Vem designar du för?

A person who would deliver food like a delivery man. That is the delivery person would be on a motorcycle for long distances.

2. Empathy Map / Empatikarta:

- Says/Thinks / Säger/Tänker: What does your user say or think about their current bag? /

Vad säger eller tänker din användare om sin nuvarande väska?

Our bag insulating bag is better than their current bag because it can change temperature depending on the product.

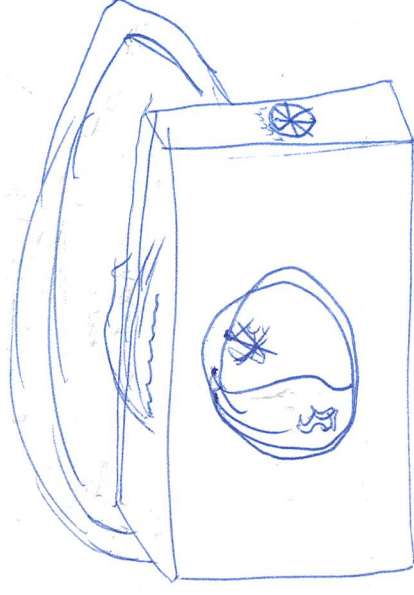
- Does/Feels / Gör/Känner: What do they do and how do they feel when carrying their things? / Vad gör de och hur känner de sig när de bär med sig sina saker?

Before they deliver food to people they feel cautious because the bag might fall off the motorcycle.

- Goals/Struggles / Mål/Svårigheter: What is their main goal? What is their biggest struggle? / Vad är deras huvudmål? Vad är deras största svårighet?

Their struggle before our bag was to keep the food warm/cold. Their main goal is to deliver their food in the right temperature.

3. Initial Ideas / Inledande idéer: Sketch or describe 2-3 different bag ideas for your user. / Skissa eller beskriv 2-3 olika väskaidéer för din användare.



Our bag is an insulating bag that is designed for delivery people on motorcycle. The bag can change temperature can be changed depending on the food product. For example, if they are delivering ice cream they would change the temperature to keep the ice cream cool. The temperature is changed by turning the dial the flap is to secure the bag onto the motorcycle.

Lesson 3: Sketching and Concept Design / Lektion 3: Skissande och konceptdesign

1. Chosen Idea / Vald idé: Which idea from Lesson 2 will you develop further? Give it a name. /

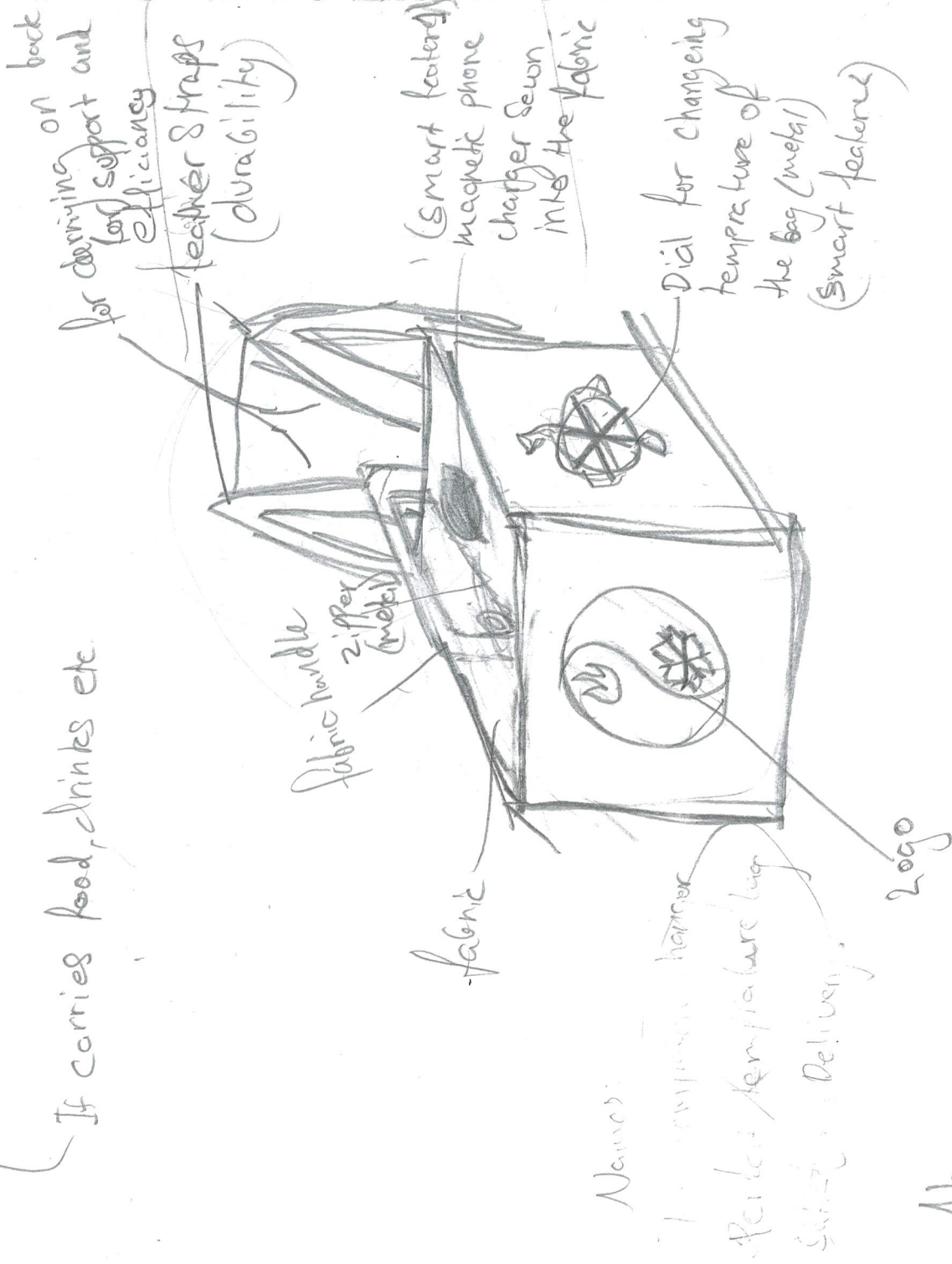
Vilken idé från lektion 2 kommer du att utveckla vidare? Ge den ett namn.
An insulating bag use for delivery drivers on motorcycles that has a dial which they use to change the temperature of the inside of it. It is also equipt with a magnetic charger for phones.

2. Annotated Sketch / Kommenterad skiss: Draw a detailed sketch of your chosen bag design.

Label the following: / Rita en detaljerad skiss av din valda väska. Ange följande:

- What it carries / Vad den bär
- Materials it's made from / Material den är gjord av
- How it works (straps, openings, etc.) / Hur den fungerar (band, öppningar, etc.)
- Its smart features / Dess smarta funktioner

If carries food, drinks etc



Names:

Infinity temperature

3. Peer Feedback / Kamratfeedback: What was one "star" (positive thing) and one "wish" (suggestion) you received from a classmate? / Vad var en "stjärna" (något positivt) och en "önskning" (ett förslag) du fick från en klasskamrat?

- Star / Stjärna: *It can cool food.*
- Wish / Önskning: *Take it more square*

Lesson 4: Smart Features / Lektion 4: Smarta funktioner

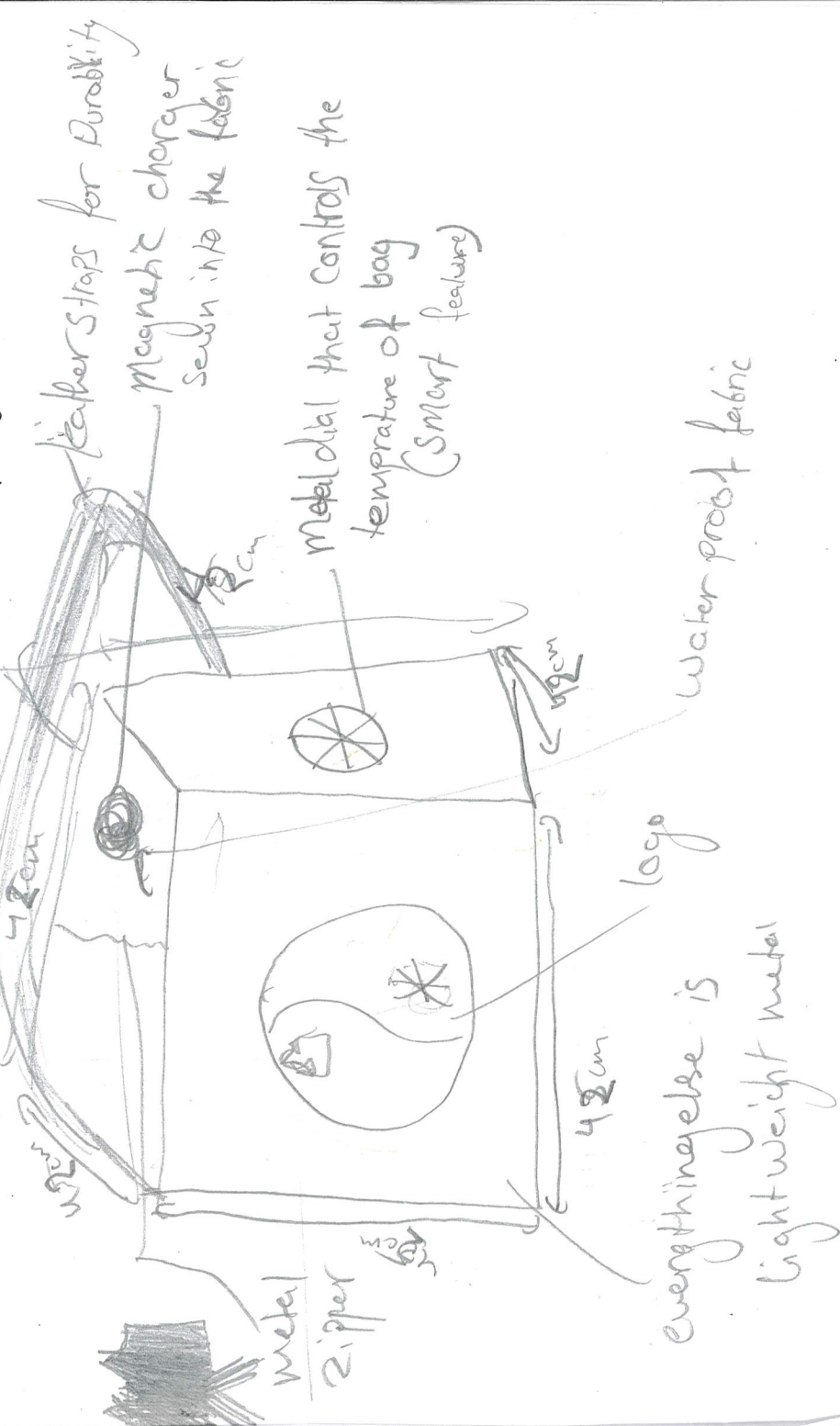
1. Your Smart Feature / Din smarta funktion: Describe the smart technology feature you are including in your bag. How does it work? / Beskriv den smarta teknikfunktionen du inkluderar i din väska. Hur fungerar den?

Our bag has 3 smart features. A dial that controls the temperature of the bag and a magnetic charging outlet sewn in between the fabric. Also the bags textile part is water proof.

2. What idea from nature inspired part of your design? / Vilken idé från naturen inspirerade en del av din design?

Our bags textile part is water proof like bird feathers and green leaves, fresh plants

3. Revised Sketch / Reviderad skiss: How did you improve your design from Lesson 3 based on today's learning? / Hur förbättrade du din design från lektion 3 baserat på dagens lärande?



Lesson 5: Sustainable Materials and Planning / Lektion 5: Hållbara material och planering

1. Material List / Materiallista: List all the materials you plan to use for your prototype. / Lista alla material du planerar att använda till din prototyp.

tail = 8cm
Cardboard box 18,5 x 31,5 cm
waterproof fabric 29,2 cm x 18,5 cm
Zipper
leather strap

2. Sustainability Focus / Hållbarhetsfokus: Which of these materials are recycled, upcycled, or otherwise sustainable? / Vilka av dessa material är återvunna, uppcyklade eller på annat sätt hållbara? The leather straps are upcycled, the water proof fabric is sustainable.

3. Tool List / Verktygslista: What tools will you need to build your prototype? / Vilka verktyg behöver du för att bygga din prototyp? Glue and Scissors

4. Plan Approval / Plan godkänd: My/Our plan has been approved by the teacher. / Min/Vår plan har godkänts av läraren. ✓ yes

Lessons 6 & 7: Prototype Build / Lektion 6 & 7: Prototypbyggnad

1. Building Progress (Lesson 6) / Byggförlopp (Lektion 6): Describe what you built today. What was easy? What was challenging? / Beskriv vad du byggde idag. Vad var lätt? Vad var utmanande? Today we found a box that fit our needs and glued waterproof fabric as an opening. We also made a functioning dial for changing the temperature. Then we made a leather strap.

2. Adding Features (Lesson 7) / Lägger till funktioner (Lektion 7): How did you incorporate your smart feature and final details today? / Hur integrerade du din smarta funktion och sista detaljer idag? We made the magnetic charger actually stickable to the demonstration phone we made. We also made a logo for our 'Infinity Temperature' bag.

3. Troubleshooting / Felsökning: What problem did you face, and how did you solve it? / Vilket problem stötte du på och hur löste du det? When we made the straps we realised they were too short so we cut more leather straps and attached them to our old straps which made them longer, solving our problem.

4. Written Explanation / Skriftlig förklaring: Write a short sentence explaining the purpose of each key feature of your bag. / Skriv en kort mening som förklarar syftet med varje nyckelfunktion i din väska.

- Feature 1 / Funktion 1: Magnetic Shoring port
- Feature 2 / Funktion 2: turning dial for changing temperature
- Feature 3 / Funktion 3: pouch

Lesson 8: Testing, Feedback and Iteration / Lektion 8: Testning, feedback och förbättring

1. Real-Use Test / Användartest: What happened when you tested your bag? Did it work as expected? / Vad hände när du testade din väska? Funkade den som förväntat? We tested the straps durability and it turned out to be sturdy and functional.

2. Feedback Carousel / Feedbackkarusell:

- Star 1 / Stjärna 1: the dial
- Wish 1 / Önskning 1: make a flap instead of zipper
- Star 2 / Stjärna 2: more design
- Wish 2 / Önskning 2: more design

3. Changes : Based on the feedback and testing, what is one change you made to improve your prototype? / Baserat på feedback och testning, vilken förändring gjorde du för att förbättra din prototyp? We added a pouch for the phone to carry the phone if it is charged or for storage of keys, phone etc.

171



176

184
1680

176



176

176 cm

176 cm

176 cm

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- Textile Part / Textilkomponent: What textile did you use? / Vilket textil använde du? Pouch for storage
- Smart Tech / Smart Teknik: What is your smart feature and how does it work? / Vad är din smarta funktion och hur fungerar den? magnetic charging port, bring dial for temperature change
- Sustainability / Hållbarhet: How did you make your design sustainable? / Hur gjorde du din design hållbar? recycled fabric and waterproof fabric

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