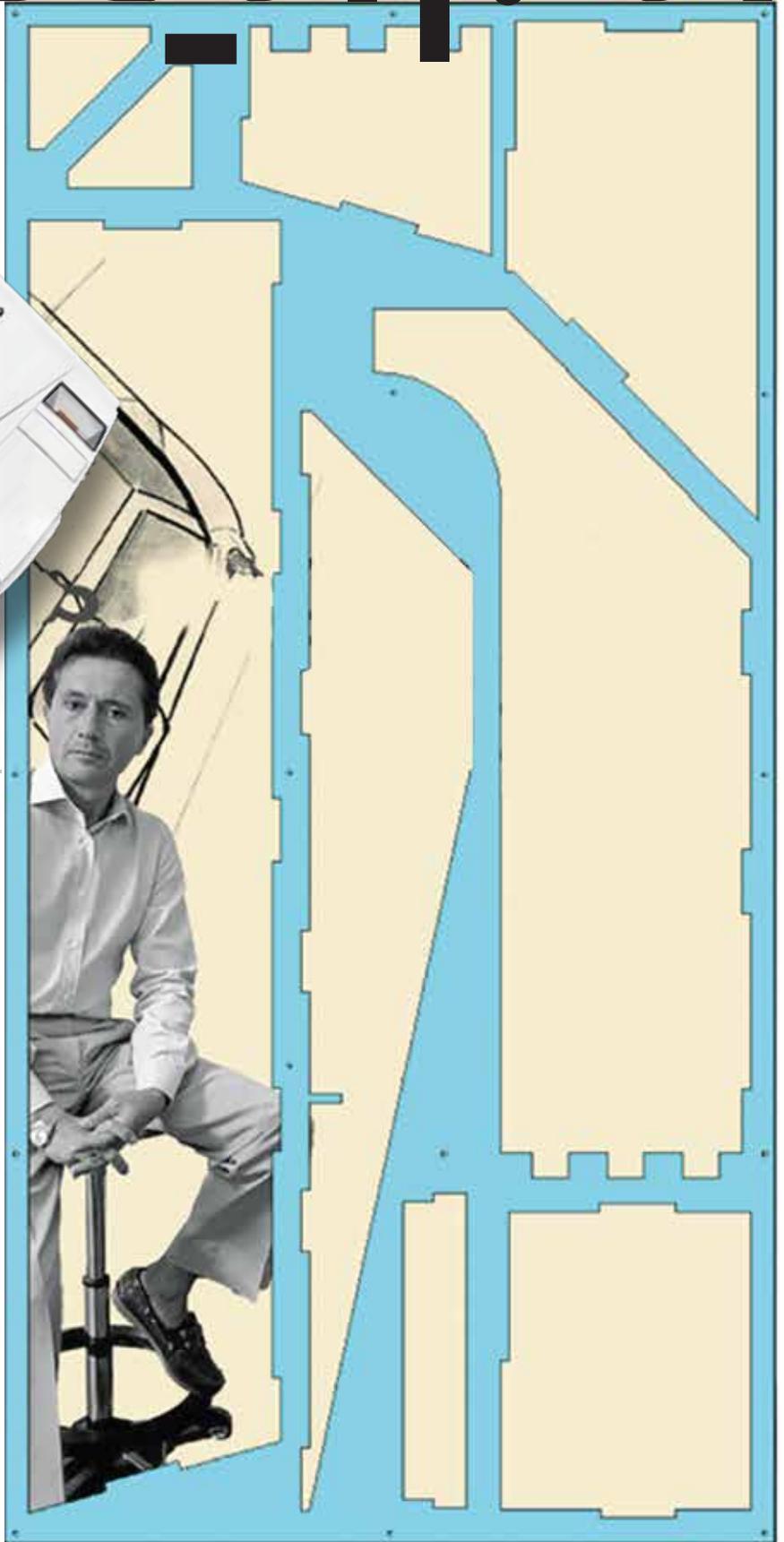


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Teacher's Guide – A Design Journey With Marcello Gandini

This teacher's guide contains valuable information and engaging activities to help students make the most out of the exhibition **Ultraleggera**: A Design Journey with Marcello Gandini

What This Guide Includes

Introduction

An overview of the exhibition, providing insight into its context.

Who is Marcello Gandini and What Cars Did He Design?

A biography of the Italian automotive designer, highlighting his contributions to car design.

Exhibition Learning Objectives

This section helps students gain a deeper understanding of Gandini's creative process by engaging with his work.

Marcello Gandini's Innovations

An exploration of Gandini's design innovations, providing tangible examples to make learning more engaging and relatable.

Back to School Activities

Practical exercises and discussion prompts to reinforce key learning points. After completing the activities, students can become part of the QAM community by sharing their work, along with their name and school, via our education email: qameducation@qm.org.qa



Marcello Gandini



Introduction

Welcome to Ultraleggera, an exhibition celebrating the visionary work of Marcello Gandini, one of the most influential automotive designers of the 20th century. His groundbreaking designs have shaped the aesthetics and engineering of some of the world's most iconic cars, pushing the boundaries of innovation and style.

This exhibition offers a rare glimpse into Gandini's creative process, tracing his evolution from bold initial sketches to refined, world-changing designs. Through his drawings, students will discover how artistic intuition, technical precision, and raw creativity merge to define the future of automotive design.

This guide is designed to help educators facilitate discussions and activities that will deepen students' understanding of Gandini's work. By engaging with his design philosophy and exploring the role of sketching in car development, students will gain a new appreciation for the artistry behind automotive innovation.

We invite you to explore, analyze, and be inspired by Marcello Gandini's revolutionary contributions to the world of design.

Exhibition Learning Objectives

Students will learn about supercar design development by Marcello Gandini and his significant contributions to the car industry.

Students will gain insights into the creative process, exploring how Gandini's innovative designs pushed boundaries by using composite materials for modular vehicle production.

Students will analyze Gandini's design decisions regarding functionality, aesthetics, and practicality, and examine how these choices influence the overall design of his dramatic car hoods and doors.

Students will learn about the challenge of assembling a car after its structure has been built, a process similar to placing a ship inside a bottle.

Students will explore cars designed by Marcello Gandini that convey a sense of movement and liberation.

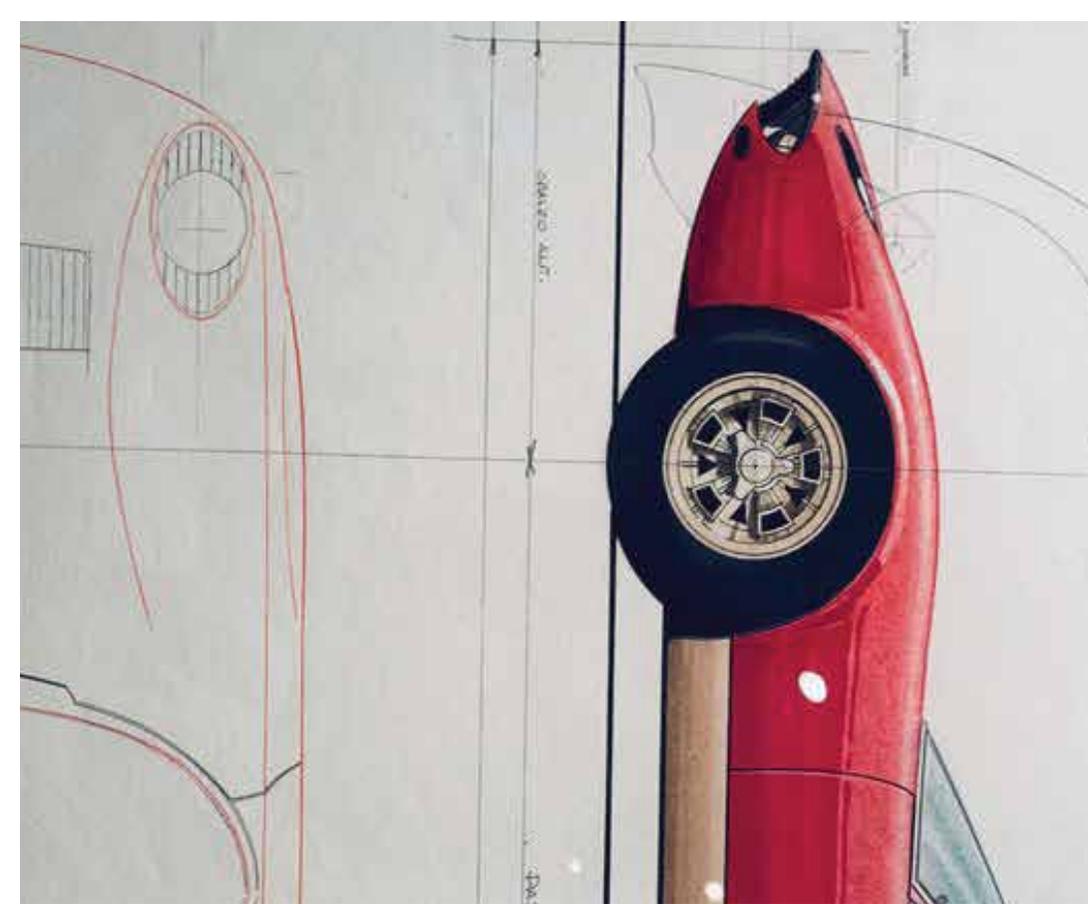
Exhibition Learning Outcomes

Students will carefully observe artworks and describe what they see during their visit to the exhibition.

Students will share their interpretations of different artworks.

Students will gain confidence in discussing artworks.

Students will identify and explore the context behind each artwork.





In the different sections, students will explore and analyze Marcello Gandini's groundbreaking creations through different displays. Each display will highlight and explain a unique aspect of his innovative process in car design



Marcello Gandini

"The car is a dream, a desire, lasting for millennia. It is half a flying carpet and half a house. It is the magical object that gives us the freedom to go anywhere we want in an instant, offering protection, shelter, space that moves with us. It is freedom. Individual freedom".

SAIL 1_ WHO IS MARCELLO GANDINI?

Marcello Gandini (August 1938 ,26 – March 2024 ,13) was an Italian automotive designer best known for his work with Bertone, where he shaped some of the most iconic cars in history. His designs were defined by bold, futuristic aesthetics, sharp geometric lines, and innovative engineering solutions.

Over a career spanning more than six decades (from the 1960s to the 2020s), Gandini left a profound mark on automotive design. Often referred to as the father of the supercar, his work extended beyond high-performance vehicles to include city cars, scooters, helicopters, boats, furniture, and engineering solutions. He seamlessly blended aesthetics with functionality, earning widespread recognition as one of the greatest designers in the automotive industry.



Headlight designs, featuring slotted covers that slid down on the Alfa Romeo



engine cooling slats Lamborghini Bravo

sail 2_ The journey with marcello gandini `S innovative designs

Gandini's designs successfully combined stunning aesthetics with practical performance. His cars not only looked incredible but were also engineered for high performance. For example, the Lamborghini Bravo introduced efficient **engine cooling** slats located at the rear above the engine.

Additionally, Gandini innovated car **headlight designs**, featuring slotted covers that slid down on the Alfa Romeo and folding eyelids on the Lamborghini.

also improved **open-air driving** with a lightweight, one-piece roof that could slide down and neatly tuck behind the seats.

With the Lamborghini Bravo, Gandini pioneered **flush-bonded glass** sections, which made the pillars appear nearly invisible. This innovation later set a standard in automotive design.

"Use technology for what it is—a means to implement ideas. But don't stop writing, drawing, calculating, creating sketches on paper. The pencil is an extraordinary means of connection between the brain, ideas, and reality. Starting a project from a sheet of paper and a pencil means there is an idea. If there is no original idea, no technological wonder can create it for you."

SAIL3_ The Pencil -Connection Between Ideas and Reality

Marcello Gandini didn't receive formal education in engineering or car design; instead, he learned on his own, motivated by his love for cars. His innate ability and creative ideas quickly established him as a key figure in automotive design.

Young Gandini showcased his artistic skills through sketches of a one-wheeled car, exciting race cars, and fun cartoon characters. These drawings demonstrate his early interest in mechanics, which later influenced his groundbreaking designs.

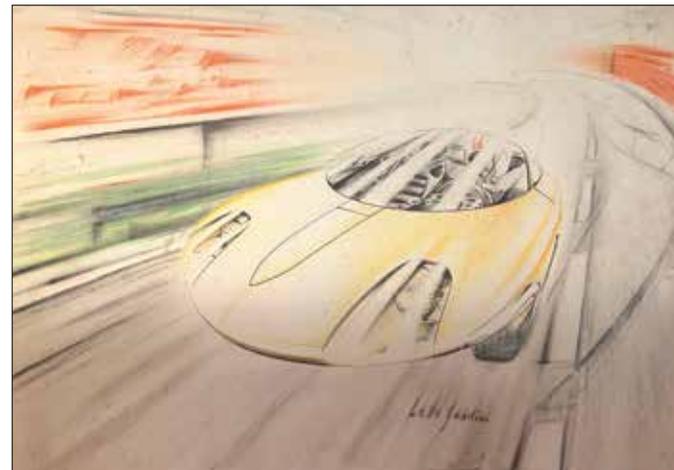
Exercise: Sketch and Compare

This activity will encourage students to carefully observe, describe, and analyze different car designs. Ask students to choose two cars from any Sail . These cars may differ in subject, materials, scale, or style. Guide them through the following questions:

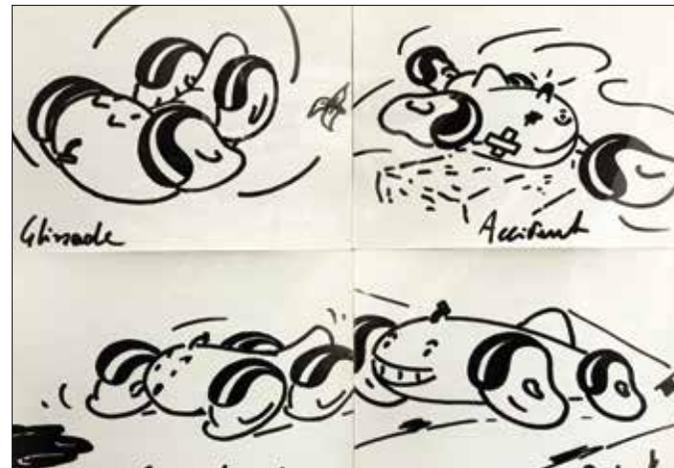
1. What was your first impression when you saw the sketch? Why did you think this way?
2. Compare the two cars—how are they similar and different?
3. What questions would you ask to learn more about the two cars you selected?



Ferrari_Marcello Gandini Archives.



Original 1960 yellow sport car_Marcello Gandini Archive



Italian cartoonist, amator and film director Bruno Bozzetto, which show various facets through car-related characters (1960s).



La Piccola, a concept car designed by Marcello Gandini in 1983.

Sail 4 - Like a Ship in a Glass Bottle

In the past, building a detailed ship inside a bottle required carefully passing pieces through a narrow opening, making the process delicate and complex. One solution was to design a ship that fit perfectly without needing tweezers, making assembly easier. Similarly, in car production, the exterior body and components like seats and dashboards are often added later. This follows the same idea of filling a container with pre-constructed parts, just like placing a ship inside a bottle.

In the early 20th century, automobiles were constructed with separate mechanical components first, followed by the bodywork.

But this changed with the introduction of the chassis-first approach, which integrated functional parts into the vehicle's framework. An example is the La Piccola, a concept car designed by Marcello Gandini in 1983. It had a small, stylish, wedge-shaped body that reflected the aerodynamic design trends of that era.

Interestingly, the La Piccola featured a single driver's seat in the middle, with two passenger seats slightly behind. Its interior was simple and futuristic, focusing on giving drivers a unique experience. Even though the La Piccola was never mass-produced and remained only a concept car, it is remembered for its innovative design and its impact on automotive history. Marcello Gandini's creative vision and pioneering ideas were evident in the La Piccola, making it a standout in the world of concept cars.

"Find a positive and effective way to deal with limits and rules."

Structurally, when it comes to car production, Marcello Gandini aimed to replace expensive metal stamping and joining processes with more affordable, molded composite materials for mass vehicle production. This aligns with an automotive manufacturing approach that focuses on creating vehicles using interchangeable components or modules.

This method allows for increased flexibility, efficiency, and customization in the production process. Examples of vehicles that used this approach include the Citroën BX (1982) and the Renault Master van (1979), where the Citroën BX featured components like the hood, fenders, rear hatch, and bumpers made from sheet molding compound (SMC).

Exercise: Critical Analysis

This activity will encourage students to engage in critical analysis and discussion on car design, focusing on La Piccola by Marcello Gandini in the classroom. In this exercise, students will learn about the "ship in the bottle" concept in car production and how Gandini revolutionized car style and design.

Ask your students

- What design elements stand out to you the most in La Piccola?
- How do you think it reflects Gandini's signature style?
- What innovative features did La Piccola introduce?
- How do you think it influenced future car design?





"A car is the pleasure of owning a polished, seductive, important object. It is also an expression of the romantic side of mechanics: the psychological extension of physical possibilities, the continuation of us, of our desire for speed, strength, perfection. Of beauty."

Sail 5 - The romantic side of mechanics

This exhibition features supercars designed by Marcello Gandini, renowned for his dramatic innovations in hoods and doors. Gandini believes that doors and windows define communication, which is the cohesive element that allows us to design the space as a complete entity.

He argues that doors and windows are not merely physical components providing access and light; they also play a symbolic role in communication. They act as interfaces between the inside and outside, allowing for visual, physical, and metaphorical connections. In his designs, he introduced several unique and revolutionary door designs that became iconic in the industry.





In his designs, he introduced several unique and revolutionary door designs that became iconic in the industry.

Scissor Doors: One of the most famous door designs associated with Marcello Gandini is the scissor door. This type of door hinges vertically at the front and opens upward like a pair of scissors. The design was first seen on the Lamborghini Countach, a sports car Gandini designed in the 1970s. Scissor doors not only added to the car's exotic appeal but also improved accessibility in tight parking spaces.

Gullwing Doors: Another innovative door design by Gandini is the gullwing door. This type of door hinges at the roof of the car and opens upward like the wings of a seagull. Gandini incorporated gullwing doors into models such as the Lamborghini Marzal and the Lancia Stratos Zero concept car. The gullwing doors gave the vehicles a futuristic, aerodynamic look and provided easy access to the interior.

Gandini also popularized **butterfly doors**, which are similar to scissor doors but open in a slightly different manner. Butterfly doors pivot upward and slightly outward, resembling the flapping motion of butterfly wings. This design was featured in cars like the Lamborghini Miura.

Exercise Wearing the Designer Hat

This lesson will guide students to communicate ideas by exploring Marcello Gandini's innovative approaches to car design. Students will create their own door and hood concepts inspired by his iconic designs.

Using paper and pencil, ask your students to sketch three different door concepts inspired by Gandini's style, considering:

Ask your student

- How does the door open?
- How does the mechanism function?
- How does the design fit with futuristic or high-performance sports cars?



Marcello Gandini doors design.

"Use technology for what it is—a means to implement ideas. But don't stop writing, drawing, calculating, creating sketches on paper. The pencil is an extraordinary means of connection between the brain, ideas, and reality. Starting a project from a sheet of paper and a pencil means there is an idea. If there is no original idea, no technological wonder can create it for you."

Sail 6 - Flying Carpet and Cars

Marcello Gandini described the flying carpet as a myth dating back 1,000 years that continues to captivate us, enabling our dreams to become reality. Similarly, he likened a car to this concept, as it has the ability to make seemingly impossible things possible.

One of Gandini's cars that are closest in style to a symbol of freedom, like the flying carpet, is the Caravan. This car is designed to convey a sense of liberation in movement—features large windows and minimal protection. The large windows create a sense of direct connection to the outside, allowing you to see and feel what's happening beyond while you drive.



Caravan

Exercise: Cars of The Future

This exercise will inspire students to explore Gandini's innovative design ideas by sketching their own futuristic car as a symbol of freedom. Ask your students:

Ask your student

- What does freedom mean to you?
- How can a car represent freedom, just like the flying carpet?
- How does your car move? Does it fly, drive, hover, or teleport?
- What are the unique features of your car?
- What materials would you use to make it light, fast, and capable of going anywhere?



"Fight to never do what someone has already done, do not even repeat yourselves, find solutions, perhaps difficult, but new. I know it's not easy. I see today's automotive companies, especially those dealing with luxury products, indulging in the temptation to make products that are always the same, infinite replicas of their own past, while the right path should be, to respect that past, never to copy it, to avoid ruining it and at the same time to show entrepreneurial and creative courage to look ahead, to support true genius, innovation, and avant-garde. I wish for an era when change and courage are a mandatory voice in the business plans of companies and in the strategy of every CEO. I am on your side"

Marcello Gandini

SAIL 7_DARE - The Legacy of Marcello Gandini `S Cars

Purity, integrity, humanity, courage, knowledge, tenacity, lightness:

These are the words that define Marcello Gandini's genius. Words that are worth retaining and diffuse to enthusiastic creative minds, students, young designers, car lovers. He was endowed with a pure, untainted talent, free from external influences. Talent is a mysterious and fragile gift. It needs to be nurtured, but it's equally important to protect it from being diluted by convenience or the allure of easy success.

We may think of it like a spring, where water emerges from the ground in its untouched, crystal-clear state. Throughout his life, the source of Marcello Gandini's genius remained untouched and unrestrained. He refused to build structures that would confine its natural flow—eschewing businesses or offices that

might have mass-produced his talent for profit. He resisted the temptation to bottle and commercialize his creativity, knowing that doing so might have generated great wealth but at the cost of diluting the essence of his work.

The time he spared by avoiding unnecessary work, fame, or wealth was devoted to life's simplest yet most profound pleasures – morning walks through mountains and forests with his dogs, soaring through the sky in a light aircraft, or pausing for a few moments beneath his favourite wisteria, savouring its delicate fragrance. In these authentic moments, he nurtured his talent and safeguarded its purity.

Marcello Gandini has sown—and will continue to sow—seeds of beauty, hope, creativity, and fearless freedom into the world.



Marcello Gandini



Marcello Gandini and Simone Carena in masterclass

The Masterclass

Moving Interiors with Marcello Gandini is a talk series between Simone Carena and Marcello Gandini aimed at learning from a creative thinker Marcello Gandini advancing his design research. The discussions are divided into four 30-minute videos. The project aims to showcase the future of design through an understanding of Gandini's design and innovation approach.

It explores questions such as: What is the future of design? Who are the future designers? Additionally, a select number of students from VCU qatar who will have the opportunity to showcase their work in this exhibition. They will create unique prototypes using the four lessons and exercises from the masterclass.

Exercise of Masterclass

1_ Between a Flying Carpet and Home: what is an "automobile"?

Exercise 1: a two-dimensional drawing: a carpet as a map of movement

2_ The Ship in the Bottle: the link between interior design and architecture. Exercise 2: the space in between, frames, doors, floors, roofs: the third dimension

3_ Qatar Car: The Nomadic Past & the Future, reflections on mobility and environment.

Exercise 3: letting nature in, domesticated: a perspective

4_ The Pearl & the Shell: how to form a pearl from an intrusion.

Exercise 4: a time capsule, a synthesis of previous exercises: slides in a box

Student Activity

Marcello Gandini's lifelong passion for sailing reflects his fascination with Movement and design beyond the automobile.

We would like you to construct a boat inspired by Gandini's original light weight boat.

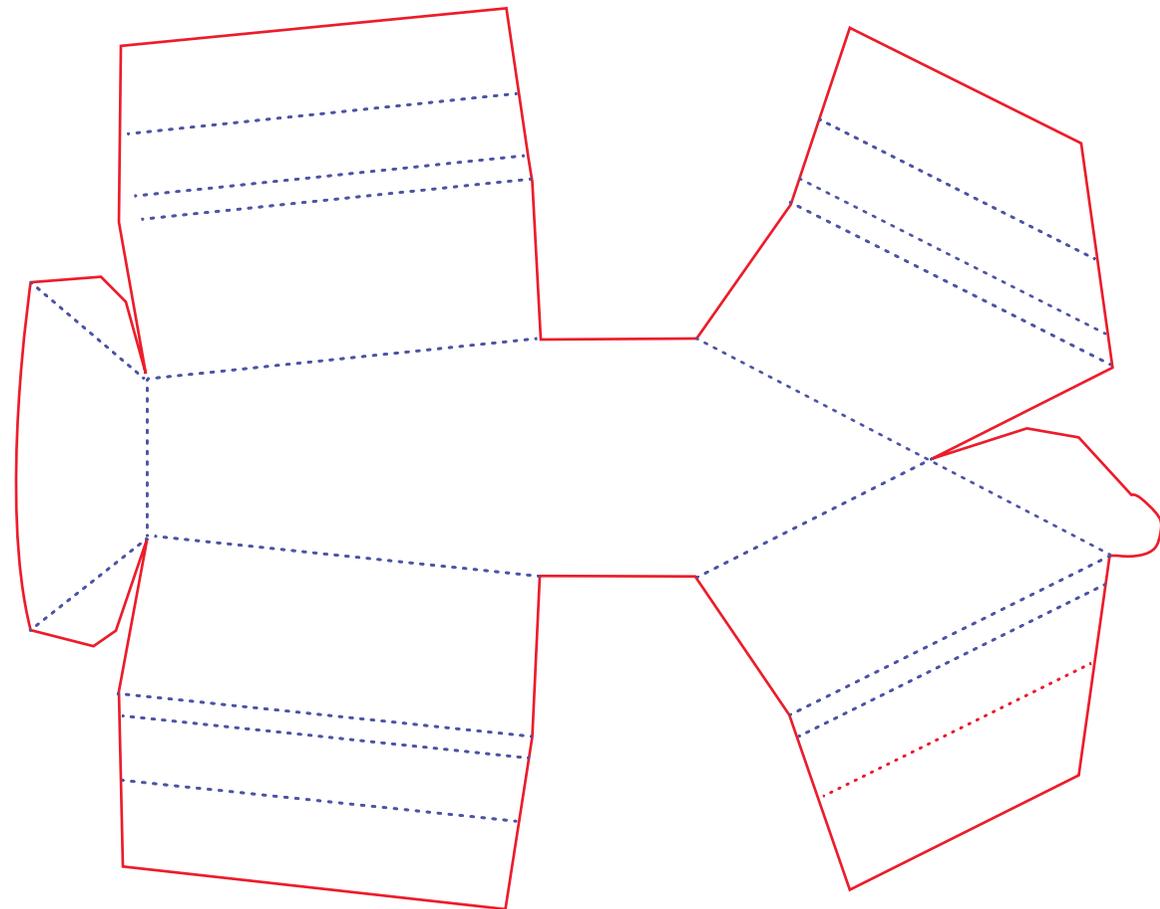
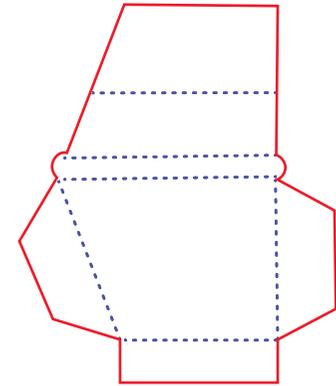
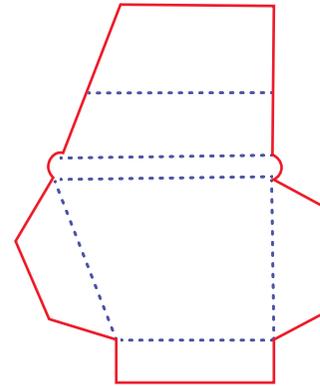
Once completed, the boat will travel to Italy, Take this opportunity to write a message on the sail and share your thoughts about Gandini's innovations in cars.

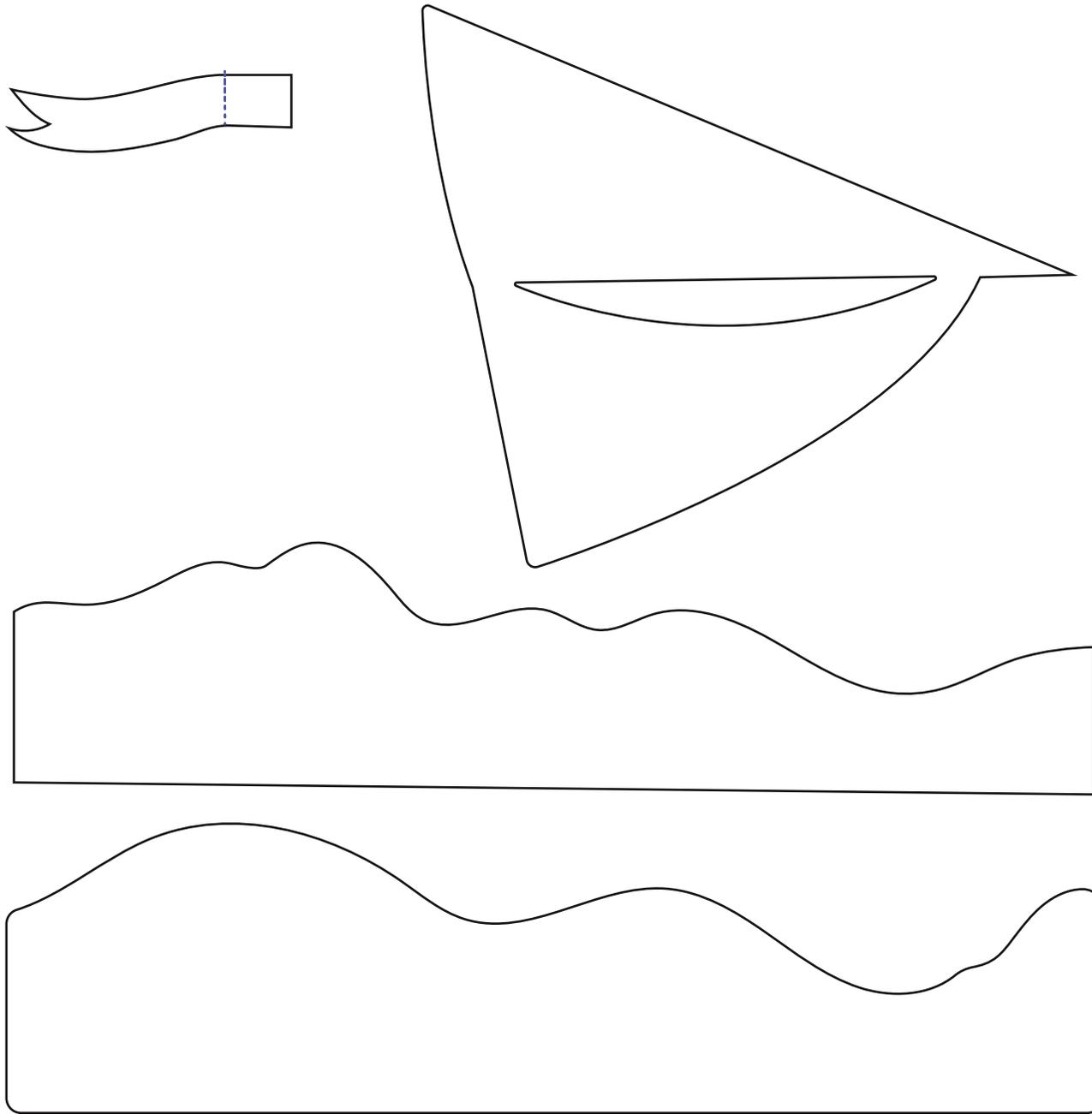
After assembling your boat and writing your message, take a photo and share it with Qatar Auto Museum's education team so it can be published on QMA's Instagram.

1. photo of your boat ,(**student photo this is optional**) and the message on the sail.
2. student name and school
3. send it to qameducation@qm.org.qa



Marcello Gandini and his wife Claudia Provera on a light weight boat





Final look of the boat