



1 Who are you, Mr Eiffel?

Gustave Eiffel's biography

- 1832** Gustave Eiffel, son of Francois-Alexandre Eiffel and Catherine Melanie Moneuse, was born in Dijon on December 15, 1832.
- 1843-50** He attends the Dijon high school and successfully passes his Baccalaureat.
- 1850** Having failed the Ecole polytechnique entrance exam, he attends the Ecole Centrale in Paris.
- 1855** Eiffel graduates as an engineer from the Ecole Centrale and turns towards the world of metallurgy, where his mother has connections.
- 1856** The young engineer is hired as associate by Charles Neveu, manufacturer of steam engines and railway equipment.
- 1857-60** The young 26 year old engineer supervises the construction of the Bordeaux bridge.
- 1862** Gustave Eiffel marries Marie Gaudalet, born in 1844. They will have three daughters (Claire, Laure and Valentine) and two sons (Edouard and Albert).
- 1866** He becomes an independent consulting engineer and the following year he sets up his own company.
- 1867-71** The engineer gets an order for the construction of two viaducts for the Commeny-Gramat railway track, located in the Allier Department and in Neuvial.
- 1872-75** Eiffel builds viaducts and bridges in Spain, Portugal, Rumania, Egypt, Chile, Bolivia and Peru.
- 1875** He builds the western station in Budapest, Hungary.
- 1876** He uses a new technique (cantilever) for the construction of the viaduct over the Douro in Portugal.
- The engineer designs the metallic structure of the Parisian department store Le Bon Marché.
- 1877** Gustave Eiffel's wife Marie dies.
- 1879-80** The bridge designer builds two new metallic bridges in Portugal and one in Hungary.
- 1880-84** He designs the Garabit viaduct in France and perfects a system of portable bridges that can be assembled in just a few days by a group of twelve men.



Bordeaux Bridge

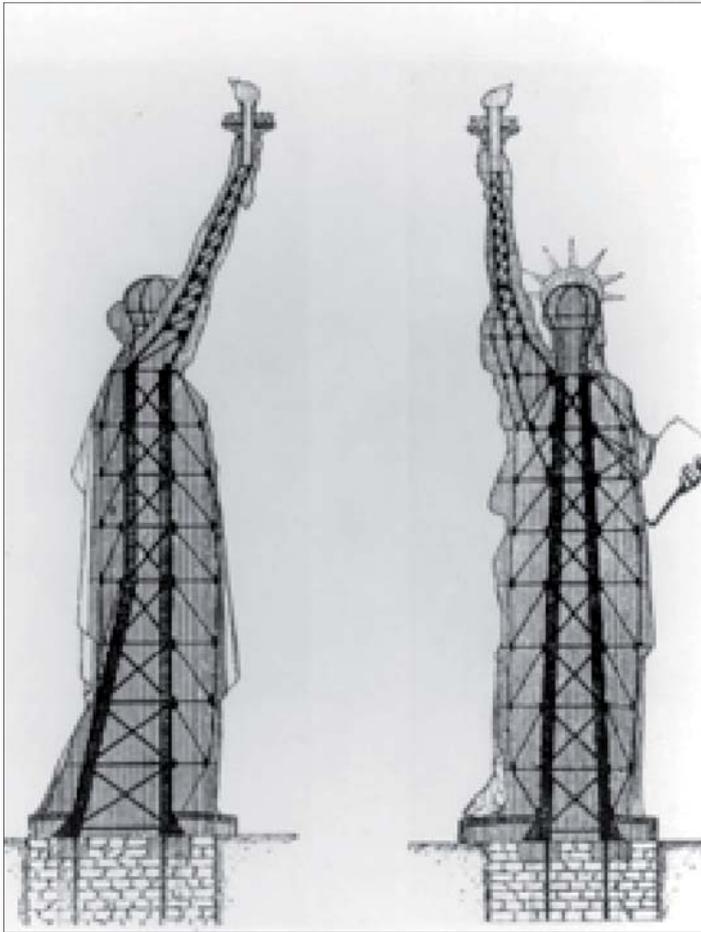


Garabit Viaduct



Who are you, Mr Eiffel?

1881-84 Gustave Eiffel designs and builds the framework of Bartholdi's Statue of Liberty. It now stands at the entrance of the harbour of New York, in the United States of America.



Gustave Eiffel 's metallic structure of the Statue of Liberty

1884 The engineer presents a project for the construction of the Tower, together with his associates Emile Nouguier and Maurice Koechlin.

1885 Gustave Eiffel designs the metallic structure of the mechanism of the dome of the Nice observatory, a system that enables frictionless movement.

1887-89 Gustave Eiffel supervises the works of the Tower, which will be completed in about 2 years.

1889-95 The engineer participates to the construction of the Panama canal, but he will withdraw as a result of the scandals connected to this project.

1894-98 The designer of the Eiffel Tower undertakes scientific experiments, among which the first radio transmissions.

1903-09 Gustave Eiffel studies aerodynamics and sets up a laboratory at the base of the Tower.

1903-04 Gustave Eiffel puts his Tower at the disposal of the military force. Captain Ferré will use it for the first wireless transmissions.

1912 The scientist builds a wind tunnel in order to pursue his aerodynamic experiments.

1918 The eighty year old man designs a monoplane fighter aircraft.

1923 Gustave Eiffel dies in Paris on December 27 at the age of 91.



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Exercises

CE2 - CM1 - CM2

French / Reading / Grammar

EDUCATIONAL OBJECTIVES

Reading and understanding an informative and documentary text.

Know the nature of the words that form a nominal group (noun, adjective, article).

Know how to use substitutes of nominal groups (synonyms) in order to avoid repeating words.

- Hand the pupils a copy of the biography or display a copy on the board, and ask the pupils to find substitutes to the words « Gustave Eiffel » after having analyzed the nature of the two words (proper nouns). Classify the substitutes in a table (nominal groups, pronouns) and find the nature of the words used, their gender and their number.

- Then ask the pupils to replace the personal pronouns by nominal groups or, according to their level, to write their own biography or the biography of someone they know, using different synonyms.

Mathematics / Geometry / Symmetry

EDUCATIONAL OBJECTIVE

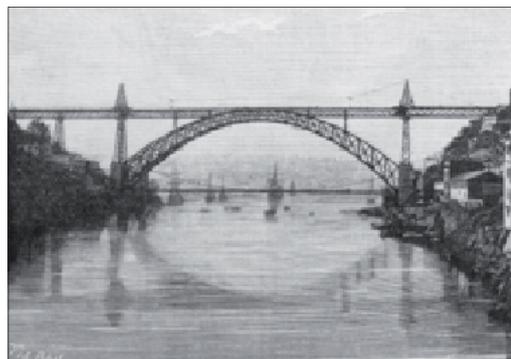
Studying and tracing symmetry axes.

- Write GUSTAVE EIFFEL in capital letters and ask the pupils to find the symmetry axes of the various letters.

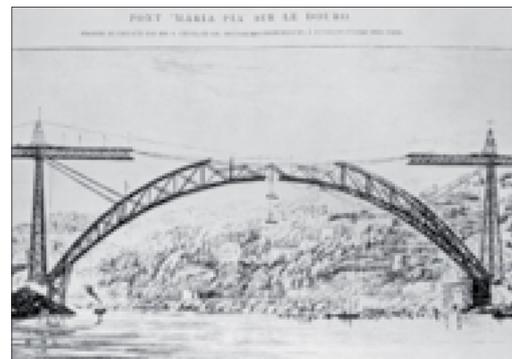
What is (are) the letter (s) that has (have) more than one axis? (I)

Find other letters of the alphabet that have more than one symmetry axis (O, X), and shapes that have one symmetry axis (3), two symmetry axes (8, 0).

Draw the symmetry axis of the bridges built by Eiffel (Garabit, Maria Pia)



Garabit



Maria Pia

History

EDUCATIONAL OBJECTIVE

Using a timeline and acquiring chronological notions.

Understanding how dates correspond to centuries.

- Ask the pupils to mark the important dates in Gustave Eiffel's life on the timeline. They must use a blue pen for family related events and a black pen for professional events. With a red pen, draw a line on the date that marks the construction of the Tower.

