

# LA COU POLE

OPEN  
7/days  
7

NEW  
10K-3D PLANETARIUM  
UNIQUE IN THE WORLD



## EDUCATIONAL BROCHURE 2022 | 2023

### HISTORY



### SCIENCE



### TEMPORARY EXHIBITION «French space exploration»





# A DAY AT LA COUPOLE!

## LA COUPOLE: TWO EDUCATIONAL FACILITIES THE HISTORY CENTRE AND THE 10K-3D PLANETARIUM

### HISTORY AND SCIENCE

Originally an immense bunker built by the Nazis in 1943-1944 to store, prepare and launch V2 rockets on London, *La Coupole* became a History Centre in 1997, to understand and analyse the conflicts of the XX<sup>th</sup> century.

The Planetarium was added in 2012 as a natural scientific extension to *La Coupole*, to complement the museum's history programme.

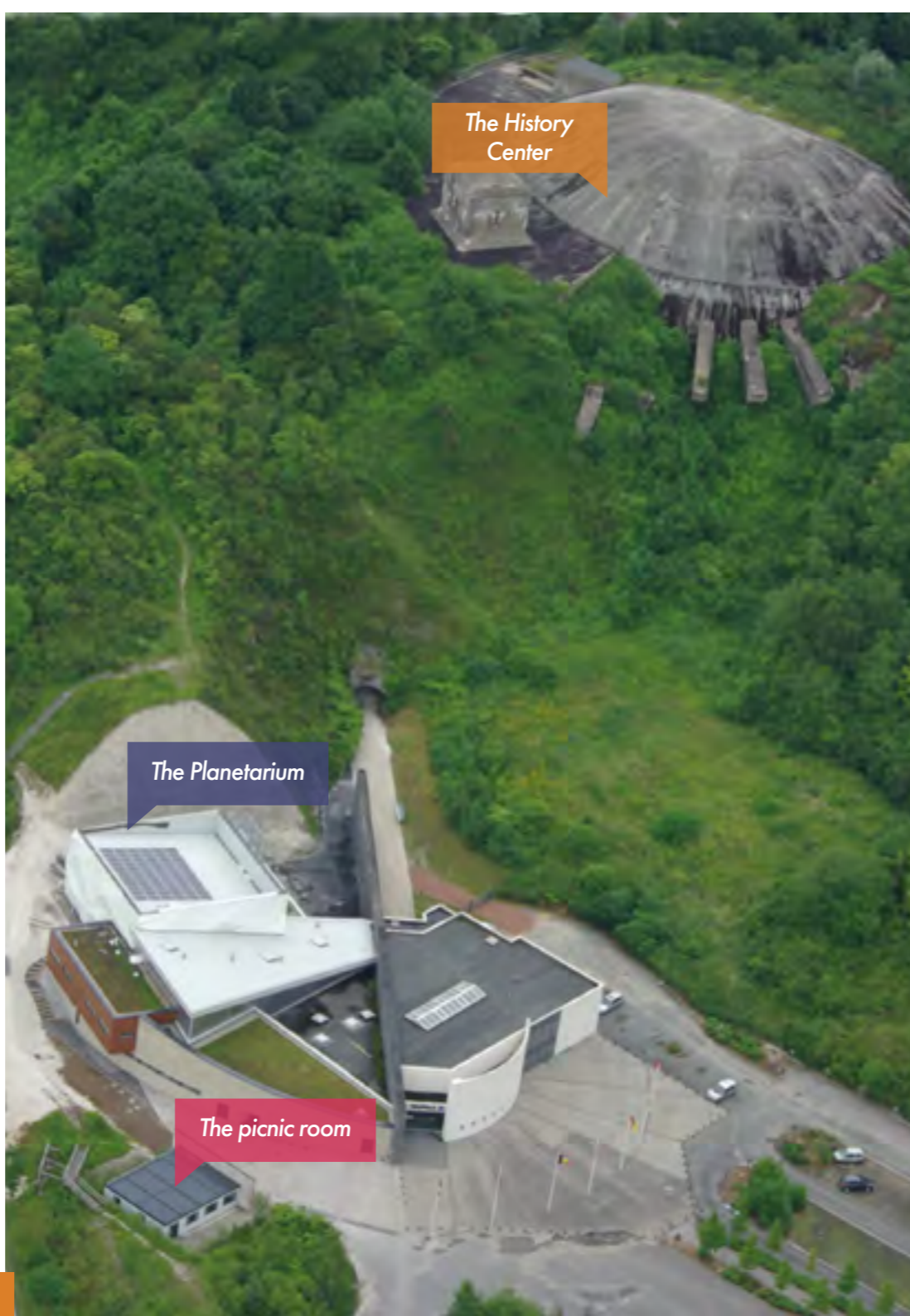
It is possible to remain on the site with your students for the entire day,

Your class can:

- Discover the temporary exhibitions ..... p. 3
- Visit the History Centre ..... p. 4 - 5
- See a Planetarium session. .... p. 6 - 7
- Discover worksheets and other visits ..... p. 8 - 11



Have lunch in the cafeteria at La Coupole. With prior booking, we can provide an optional packed lunch for 8,30 € per person, containing a sandwich, ice cream, a drink and a reusable cup. During your lunch, a picnic room is at your disposal free of charge, with prior booking.

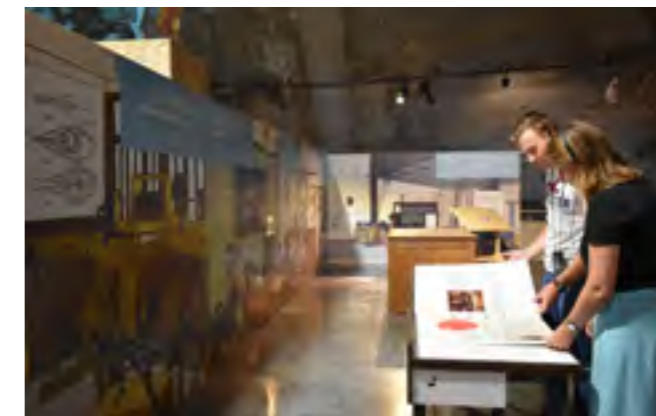


## TEMPORARY EXHIBITIONS

### FRENCH SPACE EXPLORATION

> Exhibit on show until June 2023

Discover the fascinating story of space exploration in France, starting from the first pioneers to make history to the missions of today. Follow along through the exhibition as it guides you through the major milestones that pushed the country first to be named the third space power, then later to become a key player in space expedition not only within Europe, but also at an international scale. A significant portion of the exposition will be dedicated to the history, operations, central role, and missions of the National Centre for Space Studies (CNES), in celebration of its 60 years of work.



Designed with the support and partnership of CNES, the exposition will draw on various extraordinary elements including rare archives from the Guiana Space Centre, the top components of two *Véronique* sounding rockets, historic volumes, a real model of the *Ariane 4* used in early wind tunnel tests, as well as models of other launchers to make a lasting mark on the landscape of science.

### • 1942, LIVES BROKEN, LIVES SAVED

The Mass Roundup in Northern France,  
11 September 1942

> Exhibition from 14 September 2022 to 30 June 2023

On 11 September 1942, the Nazis conducted a mass roundup of Jews in the Nord and Pas-de-Calais departments of France.

At 4am, the Feldgendarmes, aided by the French police and gendarmes, launched their mass arrests in the towns of Lille, Lens, Valenciennes and Douai. Whole families were taken by train to the station at Lille-Fives where their relatives, arrested in Lille and the outlying areas, had been waiting for them since early that morning.

It was while they waited that a massive rescue operation was undertaken by 25 railway workers and some other French citizens, upset at what was happening. On 11 September 1942, a train carrying over 500 Jews from the region set off in the direction of the Malines camp in Belgium. On 15 September, they were deported to Auschwitz.

In the spring of 1945, only 15 people came back from the camps.

In memory of these events, *La Coupole*, in cooperation with the Museum of the Resistance in Bondues and the not-for-profit association Lille-Fives 1942, and with the support of SNCF and Rail et Histoire, is presenting a unique exhibition made up of 21 information panels recounting the tragic fate that befell these families, and the amazing show of solidarity that saved some people from being killed.





**VISITOR'S MAP**

After having received your audioguide headset, the visit begins with a walk through the railway tunnel; here you will discover an exhibition on the Great War in Flanders and the Artois region. You will then go 42 metres up in the lift. When you enter the dome, you are given the choice of two core themes. Each theme begins with an audiovisual show, in either the "Rex" or the "Cinéac".

> "CINEAC" TOUR PATH

**THE NORD-PAS-DE-CALAIS IN GERMAN HANDS (1940-1945)**

Relive again in images the great moments of the German Army Occupation in Northern France...The invasion, the exodus, the daily life of the population, the Resistance and the Liberation. Projected on a replica of the wall where people were shot in the citadel of Lille, you will encounter the poignant letter of a young 21-years-old teacher written 3 hours before perishing under the German bullets.



+ HIGHLIGHTS OF THE TOUR:

Photos of the invasion; the replica of the Lille Citadel wall - known as the Mur des Fusillés - where Resistance members were executed by firing squad and the last letter from Félicien Joly, the 21-years-old school teacher shot by the Germans; the Deportation and Genocide film; photos of the liberation of the camps, etc.

**THEME 1**

• **A REGION AT THE HEART OF THE WAR (1914-1945)**



*The Nord-Pas-de-Calais in the Great War*

A forgotten front: Nord-Pas-de-Calais was at the heart of the conflict during the 1914-1918 war: part of the region invaded by the Germans in the summer of 1914, was occupied for four years. The west of the territory served as a rear base for the British Expeditionary Force. Between the two, a front line extended 70 km. It was the scene of numerous deadly attacks. The living conditions were particularly difficult.

*Northern France in German hands*

After the invasion of 1940, the North became the most occupied region in France. The population suffered four years of food scarcity, fear of the occupier, deprivation of liberty, and incessant bombing. Right from the early months of the war, men and women engaged in the resistance to fight against both Nazi and Vichy regimes.

**THEME 2**

• **THE NAZI CONCENTRATION CAMP AND GENOCIDE SYSTEM**



This theme recalls the different forms of German repression and analyses the persecution of the Jews and Gypsies. A series of photographs, taken when the camps were discovered in 1945, provides reflection on the impact of this discovery on western civilisation. A 20 minute documentary gives an in-depth view of the Nazi concentration camp and genocide system.

• **LOOS TRAIN MEMORIAL**

Between 2000 and 2003, La Coupole and the *Fondation pour la Mémoire de la Déportation* carried out research designed to identify the victims of the final great tragedy of the Occupation in Nord-Pas-de-Calais: the last "Loos Train". Now, thirteen bronze plaques for the thirteen carriages forever record the identity of the 871 men deported on September 1<sup>st</sup> to the death camps.



**THEME 3**

• **TOTAL WAR: THE NEW WEAPONS**



At Peenemünde, von Braun's men built the first large rocket in history: the V2. In America, at Los Alamos physicists, led by Robert Oppenheimer, made the finishing touches to the most frightening weapon ever made: the atomic bomb. Through the programme for these two weapons, the very nature of total war was unveiled: mobilising scientists, manufacturers, the workforce and propaganda.

• **MEMORIAL OF THOSE SHOT AND DEPORTED FROM NORD-PAS-DE-CALAIS**

The Memorial of those shot in and deported from Nord-Pas-de-Calais, inaugurated in 2010, is the fruit of historical research into all the Nazi victims (those shot, deported due to suppression and persecution and those in the Resistance killed under torture) undertaken by *La Coupole*. It pays homage to 7,700 men, women and children. On the tablets retracing the journey of each of these people, a moving wall of portraits gives victims a face again.

**IMPORTANT**

*La Coupole was a place of suffering. Today, it is a place of remembrance. Europeans of today, who live on a continent at peace, please visit in SILENCE. In the event of incorrect behaviour, the Centre reserves the right to end the visit. In the event of damage, it will take legal action. Please plan for a sufficient number of accompanying adults and supervise your students during the visit. On presentation of your reservation form, you may carry out a preliminary free visit on a date of your choice.*

**THEME 4**

• **THE COLD WAR AND SPACE CONQUEST**



The Peenemünde engineers were acquired by the winning nations in 1945 (Americans, Soviets, and also the French). They took part in the large military missile programmes of the Cold War: the rocket, coupled with the atomic bomb, became one of the essential foundations of "the balance of terror". The same men were also involved in the conquest of space.



> "REX" TOUR PATH

**HITLER'S SECRET WEAPONS AND THE HIDDEN SIDE OF SPACE EXPLORATION**

Discover the program of the German V1 and V2 secret weapons. In Peenemünde, von Braun's team built the first big rocket in history: the V2, a weapon designed as an instrument of a terror against civilians. After the war, the Peenemünde engineers were captured by the winners of the war in 1945. They took part in the great military program of the "Cold War".



+ HIGHLIGHTS OF THE TOUR:

A real V2 rocket; 2 V1 flying bomb, also known as a buzz bomb, or doodlebug; a replica of the atomic bomb dropped on Hiroshima; pictures taken in Dora by Walter Frenzt in 1944; the drawings by Léon Delarbre, etc.

**PRICES:**

5€ / per pupil - 1 accompanying adult is free for every 10 young people (5€ for additional accompanying adults).

Average duration of a session 2 hours



# THE 10K-3D PLANETARIUM

Discover space as you have never seen it before, within a completely redesigned environment and with the help of our 10K-3D laser technology. It is the only one of its kind in the world.

Equipped with the latest generation of active glasses and comfortably seated at the perfect angle in one of our specially designed inclined seats, the 15-metre diameter 360° screen will immerse you in the stars.

Explore the depths of the cosmos or set out to conquer Mars on an unforgettable interactive journey (depending on the session).

## The planetarium show is as follows:



The module of your choice, followed by a film



## THE MODULES: level by level (around 20 mins)

### PRIMARY AND MIDDLE SCHOOL:

- **THE SOLAR SYSTEM**

Directly inspired by science curriculums, this session allows us to explore the solar system and discuss the latest discoveries.

### SECONDARY SCHOOL:

- **GALAXY FILAMENTS**

Our planet seems vast from our point of view but it is only a speck of dust in the Universe. In this module, you can discover the scale of the Universe, the Earth and the largest known structures: galaxy filaments, and learn about the solar system and the galaxies.

## THE DIFFERENT FILMS

We offer 8 films to choose from:



- **POLARIS** **BACK!**

Primary and Middle school levels

Polaris is a playful story combining pedagogy and astonishing 3D effects. Addressing astronomical concepts such as the tilt of the Earth's axis, planetary types and ice in the solar system, the show also introduces key elements of the scientific method.

- **GRANPA ET ZOÉ**

Primary and Middle school levels

Might is an amazing subject, because it can make connection between things that generally have nothing in common. This film amazes the audience by conveying the message through the story of an elderly koala and a young dingo, both of whom are called on to save light!

- **D-DAY, NORMANDY 1944**

Middle and Upper Secondary school levels

June 6, 1944: the largest Allied operation of World War II began in Normandy, France. Yet, few know in detail exactly why and how, from the end of 1943 through August 1944, this region became the most important location in the world. Audiences of all ages, including younger generations, will discover from a new perspective how this mission changed the world. Exploring history, military strategy, science, technology and human values, the film will educate and appeal to all.

- **CAPCOM GO**

Middle and Upper Secondary school levels

Come and discover the long-running "race to the Moon" between the United States and the Soviet Union and the incredible effort it took to bring the first men to the Moon. *Capcom go!* is the message transmitted by the control center that kicked off the most exciting journey in the history of humanity and brought millions of people to their televisions and radios to witness with wonder the landing of the *Apollo 11* mission on July 21, 1969.



- **EXPLORE**

Middle and Upper Secondary school levels

Explore tells the story of man's fascination with the starry sky, from astronomers and astrologers in ancient times to the revolutionary discoveries of Nicolaus Copernicus and Johannes Kepler. It is thanks to Kepler's genius that today's explorers travel through space. In the form of visual storytelling « Explore » is a fantastic journey through astronomy about the past, present, and future of space explorers.

- **VOYAGER**

Middle and Upper Secondary school levels

In 1977, two space probes were launched to explore the farthest planets of the Solar system: Jupiter, Saturn, Uranus and Neptune along with their moons.

These spacecraft greatly enriched our knowledge of the distant worlds. Now after four decades they explore the interstellar space. Like two bottles launched into the cosmic ocean, both probes carry an interstellar message – the Golden Record, intended for any alien civilization.

- **DREAM TO FLY**

Middle and Upper Secondary school levels

Discover the mystery of flight with Leonardo da Vinci, the Montgolfier brothers, the Wright brothers and other inventors. Experience the adventure and find out how this immense and challenging dream, for which mankind has strived since the beginning of history came true. *Dream to Fly* is a poetic story about the history of aviation. It presents the milestones on our route to conquering the skies – both in terms of technological breakthroughs, and our perceptions of flying itself.



- **ISS EXPERIENCE** **NEW**

(From december 2022)

Primary and Middle school levels

A new astronauts team arrives in International Space Station and discovers joys, wonder and dangers of orbit's life. This unique extrem experience lead them to develop close links as those of a family.

## THE PLANETARIUM PRACTICAL INFORMATION

### PRICES

5 € / per pupil

1 accompanying adult is free for every 10 young people (5 € for additional accompanying adults)

### OPENING HOURS

Consult the Education Department by phone on:

+33 (0) 3 21 12 27 30

or by e-mail: [pedagogique@lacoupole.com](mailto:pedagogique@lacoupole.com)

or [reservation@lacoupole.com](mailto:reservation@lacoupole.com) +33 (0)3 21 93 07 07

Average duration of a session: 1 hour

### IMPORTANT

The theme of the session depends on the 1<sup>st</sup> group who lets us know their choice.

In partnership with:



Members of:





**PRIMARY SCHOOL LEVEL**

**HISTORY**

**PAUL, A CHILD DURING WARTIME** (from 9 to 11)

This circuit was devised for pupils in their final year of primary school, to try and help them understand, by studying videos, photos, and objects, what a child's life might have been like in France during the dark years, through the fictional history of a small boy called Paul. This circuit takes the form of four sheets, the first to be filled in during class and the following three to be completed during the visit.



**SCIENCE**

**FROM THE EARTH TO THE MOON** (from 9 to 11)

The XX<sup>th</sup> century is marked by a major scientific revolution: rocket science. Come and discover how the deadly V2 weapon turns out to become the Rosetta stone for the space conquest.



**SECONDARY SCHOOL LEVEL**

**HISTORY**

**THE NORTH OF FRANCE IN THE HANDS OF THE GERMANS** (from 13 to 15)

This circuit for secondary school students helps young adults to study the part of the museography devoted to The Occupation in the Nord-Pas-de-Calais. Several themes are approached and cover the whole of the exhibition. In this way, the circuit addresses key points of the secondary school syllabus: daily life under the occupation, economic looting, types of resistance and collaboration, repressive politics led by the occupier, and persecution of the Jews...

This comprehensive worksheet allows the teacher to examine one or more parts of the syllabus in-depth during the visit. Emphasis is put on all forms of visual analysis.



**WAR IN THE 20<sup>TH</sup> CENTURY, 1914-1945**

The first part, 1914-1918, tackles the notions of static warfare, mass violence and total war. The second part, 1939-1945, deals with the notion of war of annihilation.



**SCIENCE**

**FROM THE A4 TO ARIANE, THE HISTORY OF ROCKETS** (from 13 to 15)

La Coupole was designed as the first rocket launch site in human history. But what are the rockets made of? And how do the ancient V2 compare to the recent Ariane V?



**SCIENTISTS DURING THE WAR** (from 16 to 18)

This circuit, designed for year 12 and 13 students, deals with scientists' contributions to the war. It presents some of their work and its consequences. The educational objectives are as follows:

- To promote an understanding of how these weapons work
- To get the students to reflect on the consequences of the scientists' work
- To inspire individual reflection on personal responsibilities and ethics in Science

This dossier is presented in the form of 6 worksheets enabling the teacher to adapt to their own teaching approach.

**WERNHER VON BRAUN, A SCIENTIST IN WAR TIME** (from 13 to 18)

The students discover one of the most famous rocket scientists of the XX<sup>th</sup> century, but he was a notorious Nazi. A lesson around a cruel dilemma to celebrate the master work of a genius to face his dark side.



You can download teaching notes from the «Teachers» section of our website [www.lacoupole-france.com](http://www.lacoupole-france.com)

**A DAY IN THE NORD-PAS-DE-CALAIS**

**• Ô MARAIS BY ISNOR – THE MARSHLANDS**

With Isnor, you will discover the Audomarois marshlands near Saint-Omer, one of the last marshes still cultivated in France: its flora and fauna, farming, architecture, life and traditions of the inhabitants...

A guide accompanies the pupils throughout the visit and adapts his presentation to the age level of the group. Teachers receive an information pack.

**Duration of visit: 1 hour**  
**Distance from La Coupole: 30 min**  
**+33 (0)3 21 39 15 15**



**• ARC FRANCE**

The Arc France glassworks is impressive by its size and its omnipresence in the Saint-Omer region. Whether it is coloured goblets, slim flutes or refined stemmed glasses, upon entering the heart of the Arc factory, the young visitor discovers an unexpected universe in the glow of molten glass.

**Open to children from 8 years onwards**  
**+ 33 (0)3 21 12 74 74**



**• THE BLOCKHAUS IN EPERLECQUES**

The Blockhaus in Eperlecques is a gigantic construction built by the Germans in 1943-1944. Originally designed to launch V2 rockets, it was transformed into a factory for liquid oxygen.

Guided visits or audioguides can be selected at the time of booking.  
**+ 33 (0)3 21 88 44 22**



**• LE BON ACCUEIL – THE MARSHLANDS**

Le Bon Accueil is a family-run business located in the heart of the marshlands around Saint-Omer.

We provide visits lasting one hour with a commentary suited to the children's level and an educational booklet.

The boats have been made safe and are covered in bad weather.

**+33(0)3 21 38 35 14**



**• LA MAISON DU MARAIS - SAINT-OMER**

At the Maison du Marais, you can explore a wealth of exceptional natural and cultural heritage through two specially staged settings, a large park and traditional boat rides. Your students will meet the crew of the Sous-Marais, a freshwater submarine that has been secretly circulating in the Marais for many years. They will also be able to meet "Capiou", a soon to be retired market gardener who will welcome them into his farmhouse home. Guided in this way, the children will acquire a comprehensive understanding of the history, biodiversity and life of the inhabitants of the Marais Audomarois. A trip in a bacôve, a traditional boat, with one of the members of the crew is also available.

**Information and prices for workshops and visits:**  
**+33 (0) 3 21 11 96 10**

**• MIMOYECQUES FORTRESS**

Mimoyecques fortress, often nicknamed the 'cannon of London' is one of the most impressive constructions designed by Hitler, just a few kilometres from the Deux Caps site. It was planned to house the V3 supergun, Hitler's secret weapon, which could have destroyed England.

[www.mimoyecques.com](http://www.mimoyecques.com)





# A DAY IN THE NORD-PAS-DE-CALAIS



### • SAINT-OMER, LAND OF ART AND HISTORY

City planning and development agency - Pays de Saint-Omer - Interior Flanders

The Saint-Omer Land of Art and History organisation invites younger members of the public to explore architecture, heritage and landscapes. The visits and workshops they organise are tailored to school curriculums and show the diversity of the heritage of the Pays de Saint-Omer. Their Maison de l'Archéologie in Théroouanne and its pavilion, a forerunner of the Maison du Patrimoine in Saint-Omer, also present the story of how of the area evolved from Antiquity to the present day for young visitors in a fun and educational way since 2019.

#### Free app for smartphones and tablets

Follow the path of the allied soldiers who came to the region during WWI ! Explore the Saint-Omer area and discover the life of soldiers around here and the history of the British Army General Headquarters that was set in Saint-Omer between 1914 and 1916. Exclusive archive images and video footages will bring you 100 years ago.

Download the app for free on :  
<http://s.artefacto.fr/saintomer1418>

**Information and booking:**  
**+33 (0)3 21 38 01 62**



### • SANDELIN HOTEL MUSEUM

Housed in a magnificent 18<sup>th</sup> century mansion, the Sandelin Museum houses numerous masterpieces organized into three visit itineraries: Medieval Art, Fine Arts and Ceramics. Various activities are proposed: visits, workshops, games, animations for kindergarteners.

Duration: from 30 minutes to 2 hours depending on activity

**Information: +33 (0)3 21 38 00 94**

**Level: from kindergarten to high school**

**New website: [www.musees-saint-omer.fr](http://www.musees-saint-omer.fr)**



### • AZINCOURT 1415

A brand new staging transports your students to the battlefield of Agincourt, on 25 October 1415, during the confrontation between the French and English armies. Learn about the historical, economic and social contexts of the 100 Years' War. Educational workshops offer you a practical insight into an era when the foundations of our society were being laid.

**"Azincourt 1415" Centre 24 Rue Charles VI - 62310 Azincourt**  
**+33 (0)3 21 47 27 53**  
**[azincourt1415.com](http://azincourt1415.com) / [contact@azincourt1415.com](mailto:contact@azincourt1415.com)**

### • LE BOIS DES HUIT RUES IN MORBECQUE

(near Hazebrouck)

In a wood and hidden from view, this launch base for V1 missiles is one of the best preserved. The remembrance trail set out by *La Coupole* will help you understand how the site operated.

A sign posted circuit with free access, following some of the concrete tracks on the launch site, guides visitors through the section occupied by the Germans to build and install launch pads. Three storage shelters for the V1 can still be seen, with the characteristic shape that led these types of installation to be known as 'ski sites'.

# OTHER RECOMMENDED SITES

### • HISTORICAL MINING CENTRE

Lewarde  
[www.chm-lewarde.com/fr/](http://www.chm-lewarde.com/fr/)

### • DUNKIRK 1940 MUSEUM

Dunkerque  
[www.dynamo-dunkerque.com/](http://www.dynamo-dunkerque.com/)

### • CANADIAN MEMORIAL

Vimy  
[www.veterans.gc.ca/fra/remembrance/memorials/vimy](http://www.veterans.gc.ca/fra/remembrance/memorials/vimy)

### • MEMORIAL 14 18 NOTRE-DAME DE LORETTE

Souchez  
[memorial1418.com/](http://memorial1418.com/)

### • THE WELLINGTON TUNNELS

Arras  
[www.carrierewellington.com/](http://www.carrierewellington.com/)

### • THE CWGC EXPERIENCE

Beaurains  
[www.cwgc.org/visit-us/the-cwgc-experience/](http://www.cwgc.org/visit-us/the-cwgc-experience/)

### • HISTORIAL OF THE GREAT WAR

Péronne and Thiepval  
[www.historial.fr/](http://www.historial.fr/)

### • RESISTANCE MUSEUM OF BONDUES

Bondues  
[www.ville-bondues.fr/musee/](http://www.ville-bondues.fr/musee/)

### • THE MUSEUM OF THE BATTLE OF FROMELLES

Fromelles  
[www.musee-bataille-fromelles.fr/en](http://www.musee-bataille-fromelles.fr/en)

### • NAUSICAA

NATIONAL SEA EXPERIENCE CENTRE  
 Boulogne-sur-Mer  
[www.nausicaa.fr/](http://www.nausicaa.fr/)



Picnic room on the site.



Picnic tables on the site.

## PRACTICAL INFORMATION

### RECEPTION

Site in 4 languages

- **Warning!** In order to enable each school group to visit *La Coupole* under optimal conditions, bookings are limited to a fixed daily quota.
- State-of-the-art infrared audioguided headset.
- Picnic tables are available on the site. We also offer a picnic room, to book in advance of your visit (free of charge). We offer the option of a picnic basket for 8,30€, including a sandwich, ice-cream, a drink and a reusable cup (please reserve in advance).

- Ensure that each pupil has a pencil. Clipboards are available at the reception desk on request to help the pupils take notes.
- Please leave bags in the coach.

### TIMES

- Open every day all year round
- From 9 am to 5.30 pm, from September to March.
- From 9 am to 6 pm, from April to June.
- From 9 am to 7 pm, in July and August.
- Closed for 2 weeks in January.

### TICKETS PRICES

- **History Centre:**  
 5€\* per pupil.  
 Free accompanying adult for every 10 pupils  
 (5 € per additional accompanying adult).

- **Planetarium:**  
 Session: 5€\* per pupil  
 Free accompanying adult for every 10 pupils  
 (5 € per additional accompanying adult)

\*Tariff applies to all primary and secondary schools

# LA COUPOLE

OPEN  
7/7 days  
7

**A STEP  
FROM HISTORY  
TO SCIENCE**

## LOCATION

Street André Clabaux (D210) - 62570 Wizernes  
FRANCE



Signposted itinerary

GPS: N50.6984596 E2.2435140

## LA COUPOLE

### EDUCATIONAL CONTACT:

Tél. + 33 (0)3 21 12 27 30

Fax : + 33 (0)3 21 39 21 45

E-mail : [pedagogique@lacouple.com](mailto:pedagogique@lacouple.com)

### BOOKING CONTACT:

Tél. : + 33 (0)3 21 93 07 07

Fax : + 33 (0)3 21 39 21 45

E-mail : [reservation@lacouple.com](mailto:reservation@lacouple.com)

### ACCESSIBILITY

The entire *La Coupole* itinerary, History Centre and 10K-3D Planetarium is accessible to people of reduced mobility.

Follow us on our social networks



**LA COUPOLE**  
CENTRE D'HISTOIRE  
PLANÉTIARIUM 3D

**62** Pas-de-Calais  
Mon Département

  
**CAPSO**  
DU PAS DE CALAIS



  
**cnés**  
CENTRE NATIONAL  
D'ÉTUDES SPATIALES