

## DAY 3: Tuesday, 23 July

### STUDENT

10:00 a.m. – 3:00 p.m.  
Guided tour of Versailles  
Palace and its garden  
Picnic in the gardens

4:30 p.m. – 6:00 p.m.  
Presentation of safety  
measures  
› Pierre Gilles de Gennes  
Highschool

from 7:00 p.m.  
Diner/Manipulation of  
some material useful for  
the practical exam  
› Housing place garden

### MENTOR

All day long  
Translation  
of experimental exam

7:00 p.m. – 12:00 p.m.  
Happy hour



Château de Versailles

### Birthday

Milana Azerbaidjan Mentor

Meteo



37°C  
sun

# making science together!

## Chemistry in the time of Louis XIV... or the “pre-Chemistry” period

Under the reign of Louis XIV, the scientists of the time were engaged in the practice of alchemy rather than chemistry! The most emblematic goal of alchemy was the making of the philosopher's stone, or “great work”, supposed to be able to transmute common metals into gold, or silver. Other aims of alchemy were essentially therapeutic, with the search for the elixir of immortality and Panacea (universal medicine). The alchemists believed that there were four elements: water, air, earth and fire, and three principles: sulfur, mercury and salt. By combination they could, with the aid of hermetic theories, explain the formation of the objects which surrounded them. There was also a fire-like element: the phlogiston supposed to represent the lost part of combustion.

During the 18<sup>th</sup> century, a Frenchman, Antoine Laurent de Lavoisier, thanks to experiments of unprecedented precision, stated that “water is not a simple substance, it is capable of decomposition and re-composition”, and therefore that: “nothing is created, nothing is lost, everything is transformed”. He is regarded as the father of modern chemistry. Unfortunately for him, he was a great scientist in a troubled time and was executed during the French Revolution in 1794.

## Sanofi

Sanofi is dedicated to supporting people through their health challenges. We are a global biopharmaceutical company focused on human health. We prevent illness with vaccines, provide innovative treatments to fight pain and ease suffering. We stand by the few who suffer from rare diseases and the millions with long-term chronic conditions.

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POUR L'ÉCOLE  
DE LA CONFIANCE

3



catalyzer

## The IChO 2019 are now opened!



Yesterday, the Opening Ceremony of the IChO 2019 took place at the Maison de la Chimie, located at the heart of Paris. Let the IChO 2019 begin!

I<sup>T</sup> C<sup>T</sup> h<sup>T</sup> O<sup>T</sup>  
51<sup>st</sup> — International  
Chemistry Olympiad  
France — Paris — 2019



# How the Hall of Mirrors came into being



In 1660, Louis XIV decided to develop a French national industry for lace, cloth, glasses, mirrors and silk stockings. At that time, even the smallest mirror was a real luxury, making mirrors was very difficult and expensive! The most famous glass blowers were all Venetians, and their secrets were well-guarded.

From 1664 to 1666, French secret agents attracted Venetian glass blowers to France with promises of wages and special justice, in order to create the Royal Mirror Factory. Their secret of glass fabrication finally known, the French Royal Manufacture then

joined forces with a Norman industrialist and produced the 357 mirrors for the Hall of Mirrors in Versailles. It was the beginning of a French monopoly in Europe for almost a century.

At that time, the master blowers produced a cylindrical glass bottle that was up to 1 m long. This bottle was then cut and unfolded hot, and rolled on a metal plate with a copper cylinder.

As of today, you can still admire their work, since 70% of the hall's mirrors are still the original parts, blown from 1678 to 1684.

# The International University Campus in Paris (or IUCP)



The mentors of the 51<sup>st</sup> IChO are housed in the International University Campus in Paris... But what is this place?

Ever since the Middle Ages, the University of Paris has always welcomed students from all over the world, in what they used to call the “College of Nations”. When the International University Campus in Paris (a private foundation, recognized as being in the public interest) was created in 1925, it continued this tradition of welcome.

The International Campus is endowed with an exceptional built architectural heritage, characterised by the diversity of styles, which combine national references and modernist design. Constructed between 1925 and 1969, the 40 residences of the International Campus bear witness to the architectural diversity of the 20<sup>th</sup> century.

Since its inception, the founders of the International Campus have wanted to contribute to the creation of peace in the world by creating a place dedicated to exchanges between people from different nations. Nowadays, these are still the core ideals of the Campus and many cultural events carry on the tradition of the founders’ ideals.

# Periodic ID card of the day

## 6 . Carbon

Discovery: exact date unknown  
by prehistoric men  
Family: Crystallogens  
Period: 2<sup>nd</sup>

6

12.01

C

CARBON

### A few of its properties

No need to introduce Carbon, the most famous element: main constituent of organic matter, whose degradation products are coal and oil, it is also blamed as mainly responsible for global warming in the form of CO<sub>2</sub>... Carbon’s native states are graphite (C sp<sup>2</sup>, conductive) and diamond (C sp<sup>3</sup>, metastable, insulating, the hardest natural mineral), but can also be found and used in newly discovered polymorphic graphite varieties: fullerenes, carbon nanotubes and graphene. Used in dating with <sup>14</sup>C, Carbon is also full of promises for the future!

# Game of the day

### Funny mnemonics for the periodic table

The sentence “Little Ben became Charlie’s number one fighting nemesis” helps English students memorize the first elements of the periodic table. Try to recognize the language and translate more examples below. Ask other delegations for help and discover more funny mnemonics!

- Lili bebía Barrilitos cada noche ó frío Nescafé
- Liebe Betty bitte (c)komm nicht ohne frische Nelken
- Lily bêchait bien chez notre oncle François Nestor

### Answer – Game of Monday, 22 July

A) Lutetium - B) Oganesson - C) Silicon - D) Beryllium - 1) Tungsten - 2) Niobium

# Vocabulary

	
Petit-déjeuner	Breakfast
Déjeuner	Lunch
Dîner	Dinner
Bon appétit !	Enjoy your meal!
Manger	To eat
Boire	To drink
Santé	Cheers!
Mettre de l’eau dans son vin	Literally: Put water in his wine Meaning: To moderate oneself

# IChO 2019 Opening Ceremony



Jean-Michel Blanquer, French Minister of National Education and Youth officially declared the 51<sup>st</sup> edition of the IChO opened!



What an honour to assist to one of Jean-Pierre Sauvage’s conference, Nobel Prize in Chemistry in 2016 and Honorary President of the IChO 2019 Scientific Committee.



The assembly had the chance to assist to interactive conference and cultural breaks!



All 80 participating teams were introduced to the assembly! Good luck everybody!