

# THE **Oomph!** DIGEST

## An Oomph! Digest Special: Chemistry



You might think of chemistry only in the context of lab tests, food additives or dangerous substances, but the field of chemistry involves everything around us.

"Everything you hear, see, smell, taste, and touch involves chemistry and chemicals (matter)," according to the American Chemical Society (ACS), "And hearing, seeing, tasting, and touching all involve intricate series of chemical reactions and interactions in your body."

Chemistry doesn't just seek to understand only the properties of matter, like the mass or composition of a chemical element. It also wants to understand how and why matter undergoes certain changes — whether something transformed because it combined with another substance, froze because it was left for two weeks in a freezer, or changed colour because it was exposed to too much sunlight.

## Fun facts about Chemistry



The rarest naturally-occurring element in the Earth's crust is called astatine.

Lightning strikes produce Ozone, hence the characteristic smell after lightning storms.

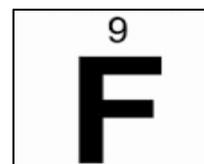
Famed chemist Glenn Seaborg was the only person who could write his address in chemical elements.

Your body has enough graphite inside of it to produce roughly 9,000 pencils.

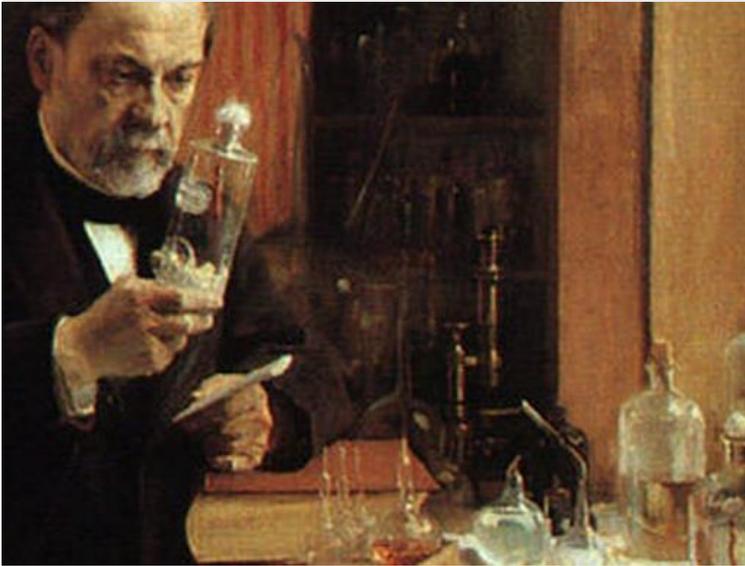
The airbag in cars can save your life, but they are actually made of a highly toxic substance called sodium azide. The airbag is full of these salts and they release once triggered by the vehicle to increase their temperature in order to burst the bag out of its compact place.

### Name that element...

Here are three elements from the periodic table. Can you name them all?



## Germ Theory



In the 19th century, the French chemist, Louis Pasteur's work in germ theory led to vaccinations for anthrax and rabies. Plus, after coming up with the process of pasteurization, where bacteria are killed by heating beverages and then allowing them to cool, Pasteur saved the beer, wine, and silk industries in France!

## Cleaning with Chlorine



Clause Louis Berthollet was a French chemist who researched dyes and bleaches, which led to him introducing the use of chlorine as bleach. Did you know, he was one of the several scientists who accompanied Napoleon to Egypt and eventually became vice president of the French Senate in 1804?

## Putting the blue in blue jeans

German chemist Adolf von Baeyer was born in 1835 and made his first chemical discovery — a new double salt of copper — at the age of 12. He began developing indigo, the blue dye used to colour most jeans, in 1865 and successfully synthesized the dye several years later. Blue jeans have soared in popularity since then, and remain a firm fashion favourite.



## A Chemistry Joke

**Q:** What's the dullest element?

**A:** Bohrium!

## Word Scramble Puzzle

Can you unscramble this selection of scrambled words relating to:

### CHEMISTRY

1. UTMIXER
2. TOMA
3. CMOLEULE
4. PERDIOCI TAE LB
5. MENTELE
6. EMLTA
7. ONN ELATM
8. CONPOUDM
9. REANCATT
10. ETTRMA

**Quiz Answers:**  
1. b) 2. a) 3. a) 4. b) 5. c)

**Word Scramble Answers:**  
1. MIXTURE, 2. ATOM, 3. MOLECULE,  
4. PERIODIC TABLE, 5. ELEMENT, 6. METAL,  
7. NON METAL, 8. COMPOUND, 9. REACTANT,  
10. MATTER

**Element Answers:**  
IRON, MAGNESIUM & FLUORINE

## Chemistry Quiz

1. **What does chemistry seek to understand?**
  - a) The relationship between force and mass
  - b) How and why matter undergoes changes
  - c) How living things function
2. **What do lightning strikes produce?**
  - a) Ozone
  - b) Chlorine
  - c) Sulphur
3. **Which vaccinations were a direct result of Pasteur's work?**
  - a) Rabies and anthrax
  - b) Mumps and rubella
  - c) Colds and flu
4. **In which year was indigo dye developed?**
  - a) 1965
  - b) 1865
  - c) 1065
5. **How much graphite does the human body have inside it?**
  - a) 10 pencils worth
  - b) 500 pencils worth
  - c) 9,000 pencils worth