

STEM WITH ARTS

Teresa Cecchi, Arianna Giuliani | ITT Montani | Fermo (FM) | Italy

A Symphony of Atoms, an Alchemy of Notes "The School of Athens" by Raphael

An edutainment live performance about Philosophia Naturalis during Covid pandemic

Pythagoras taught four elements doctrine. The 1st "element" is fire. Chemistry produces a synesthesia between electromagnetic and sound waves of the octave interval from a Theremin.



The 2^{nd} "element" is Air. We emphasize the significance of N_2 , O_2 and CO_2 . We make them flow with Vivaldi's Wind notes

Earth and water are the 3rd and 4th "elements". Listening to ancestral rhythms, we simulate the cosmogonic separation of earth from waters (Winkler's reaction)





Aristotle introduced the concept of Quintessence. His 7 heavens, linked to the 7 metals of the ancient world, produce the harmony of the Universe

Epicurus, the father of

atomism, observes

"his" atoms.





We show metals reactivity while listening to Kepler's notes, whose pitch is proportional to the velocity of planets in aphelion and perihelion

The alchemists **Gonzaga** and **Averroes** celebrate our spectacular reactions, with the Sorcerer's Apprentice notes by Dukas.



Hazard Risk Rating of all the experiments (MoVaRisCh, art 223 D.Lgs 81/08): R<15



Italian art is an original tool to teach Chemistry

The emotional energy of the Science on Stage performance helps rationalize the chemical theory

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