

# Gases

## ACROSS

- 2 "Volumi uguali di gas diversi posti nelle stesse condizioni di pressione e di temperatura contengono lo stesso numero di molecole."
- 4 Number of grams in 3 moles of hydrogen gas.
- 5 0 mm Hg.
- 8 Number of covalent bonds in a molecule of hydrogen.
- 10 Pressure unit.
- 12 Thermoscopes were once used to measure this.
- 13 0°C, 1 atm.
- 16 "I have already called attention to certain philosophical experimants that are in progress ... relating to vacuum, designed not just to make a vacuum but to make an instrument which will exhibit changes in the atmosphere, which is sometimes heavier and denser and at other times lighter and thinner."
- 18 Number of atoms in a molecule of cyclopropane.
- 19 It's measured in teaspoons, bushels, quarts and hogsheds

## DOWN

- 1 Weather forecasting tool.
- 3 On August 27, 1783 at the Champs de Mars in Paris he filled a balloon with gas that had been made by pouring 225 kg of sulfuric acid over half a ton of scrap-iron. After a flight that lasted about 45 minutes, his balloon descended into a field close to the little village of Gonesse, where the local farmers attacked it with pick axes and spades.
- 4 Self-contained underwater breathing apparatus.
- 6 Carbon monoxide can attach itself strongly to the oxygen- binding sites on this protein, making it unable to act as an oxygen-transporting molecule in blood.
- 7 It changes with altitude.
- 9 Has 5 valence electrons.
- 11 Liquid used by Boyle.
- 14 Disease treated with iron lung.
- 15 Gas with atoms that have completely filled outermost electron shells.
- 17 224 liters of helium contain this many moles of atoms at STP.



