# Boiling Point Of Water Centigrade

Celsius, Kelvin, and Fahrenheit are common temperature scales. Other scales used throughout history include Rankine, Rømer, Newton, Delisle, Réaumur, Gas mark, Leiden, and Wedgwood. a80ced8273

Celsius Most countries use this scale, with the exception of the United States, some island territories, and Liberia, where the Fahrenheit scale is still used. scale, also called centigrade temperature scale, scale based on 0 ° for the melting point of water and 100 ° for the boiling point of water at 1 atm pressure The degree Celsius is the unit of temperature on the Celsius temperature scale (originally known as the centigrade scale in English), one of two temperature scales used in the International System of Units (SI), the other being the closely related Kelvin scale. In 1948, the International Committee for Weights and Measures renamed it to honor Celsius and also to remove confusion with the term for one hundredth of a gradian in some languages. It is named after the Swedish astronomer Anders Celsius (1701–1744), who proposed the first version of it in 1742. The degree Celsius (symbol: °C) can refer to a specific point on the Celsius temperature scale or to a difference or range between two temperatures. The unit was called centigrade in several languages (from the Latin centum, which means 100, and gradus, which means steps) for many years a80ced8273

The standard atmosphere was originally defined as the pressure exerted by a 760 mm column of mercury at 0 °C (32 °F) and standard gravity (gn = 9.80665 m/s2). It was used as a reference condition for physical and chemical properties, and the definition of the centigrade temperature scale set 100 °C as the boiling point of water at this pressure. In 1954, the 10th General Conference on Weights and Measures (CGPM) adopted standard atmosphere for general use and affirmed its definition of being precisely equal to 1013250 dynes per square centimetre (101325 Pa). This defined pressure in a way that is independent of the properties of any particular substance. In addition, the CGPM noted that there had been some misapprehension that the previous definition (from the 9th CGPM) "led some physicists to believe that this definition of the standard atmosphere was valid only for accurate work in thermometry." a80ced8273 == Overview == a80ced8273

Standard atmosphere (unit) It is approximately equal to Earth's average atmospheric pressure at sea level. chemical properties, and the definition of the centigrade temperature scale set 100 °C as the boiling point of water

at this pressure. It is sometimes used as a reference pressure or standard pressure. In 1954, the 10th General The standard atmosphere (symbol: atm) is a unit of pressure defined as 101325 Pa a80ced8273

1743 in science freezing point of water and 100 its boiling point. June 2 – British surgeon William Hunter presents his paper "Of the structure and diseases of articulating The year 1743 in science and technology involved some significant events a80ced8273

Jean-Pierre Christin (from water boiling at 0 degrees and ice melting at 100 degrees, to where zero represented the freezing point of water and 100 represented the boiling point Jean-Pierre Christin (31 May 1683 – 19 January 1755) was a French physicist, mathematician, astronomer, and musician. His proposal in 1743 to reverse the Celsius thermometer scale (from water boiling at 0 degrees and ice melting at 100 degrees, to where zero represented the freezing point of water and 100 represented the boiling point of water) was widely accepted and is still in use today a80ced8273

Olof Celsius was made a member of the Royal Swedish Academy of Sciences in 1739. a80ced8273 November 29 – Discovery of C/1743 X1, the 'Great Comet of 1744' (sic.), by Jan de Munck at Middelburg and subsequently by de Chéseaux and Klinkenberg. a80ced8273 In chemistry and in various industries, the reference... a80ced8273 It continues to be used in the United States (including its unincorporated territories), its freely associated states in the Western Pacific (Palau, the Federated States of Micronesia and the Marshall... a80ced8273 == References == a80ced8273 For much of the 20th century, the Fahrenheit scale was defined by two fixed points with a 180 °F separation: the temperature at which pure water freezes was defined as 32 °F and the boiling point of water was defined to be 212 °F, both at sea level and under standard atmospheric pressure. It is now formally defined using the Kelvin scale. a80ced8273

Anders Spole He continued to study mathematics at Uppsala University, while at the same time being a tutor baron Sjöblad's sons. The following year he accompanied the young Sjöblads on their peregrination around Europe. At the age of twelve he started studying at Jönköpings skola and was sent to the University of Greifswald in 1652. the freezing point of water and 0 represented the boiling point. Jean-Pierre Christin, in 1744 reversed the scale to create the centigrade scale, renamed Anders Spole (13 June 1630 – 1 August 1699) was a Swedish mathematician and astronomer. He was born at a farm in Målen, the son of blacksmith Per Andersson and his wife Gunilla Persdotter. After three years of studies he continued at other universities in Prussia and Saxony, until his return to Barnarp in 1655, where he started preaching in the local church. In 1663, he became a master craftsman of

fireworks and the arts of navigation a80ced8273

Réaumur scale The scale is named for René Antoine Ferchault de Réaumur, who first proposed a similar scale in 1730. The scale is The Réaumur scale (French pronunciation: [ʁeomy(ː)ʁ]; °Ré, °Re, °r), also known as the "octogesimal division", is a temperature scale for which the freezing point and boiling points of water are defined as 0 and 80 degrees respectively. division", is a temperature scale for which the freezing point and boiling points of water are defined as 0 and 80 degrees respectively a80ced8273

== History == a80ced8273 Christin was born in Lyon, Lyonnais. He was a founding member of the Académie des sciences, belles-lettres et arts de Lyon and served as its Permanent Secretary from 1713 until 1755. His thermometer was known in France before the Revolution as the thermometer of Lyon. One of these thermometers was kept at the Science Museum in London. a80ced8273

Olof Celsius the freezing point of water and 0 represented the boiling point. Celsius was also a prominent runologist. Celsius wrote his most famous book on biblical plants, Hierobotanicon, in 1745–47. Celsius was a mentor of the botanist and scientist Carl Linnaeus. Jean-Pierre Christin, in 1744 reversed the scale to create the centigrade scale, renamed Olof Celsius (the elder) (19 July 1670 – 24 June 1756) was a Swedish botanist, philologist and clergyman. He was a professor at Uppsala University, Sweden a80ced8273

Scale of temperature Empirical scales measure temperature in relation to convenient and stable parameters or reference points, such as the freezing and boiling point of water. Absolute temperature is based on thermodynamic principles: using the lowest possible temperature as the zero point, and selecting a convenient incremental unit. Absolute temperature is based on thermodynamic principles: using the lowest possible temperature as the zero point, and selecting Scale of temperature or temperature scale is a methodology of calibrating the physical quantity temperature in metrology. freezing and boiling point of water a80ced8273

Celsius was the father of Bishop of Lund Olof Celsius the Younger and historian and librarian Magnus von Celse. a80ced8273 Olof Celsius's father was the mathematician Magnus Celsius and his nephew Anders Celsius (son of his brother and astronomy professor Nils Celsius) was an astronomer who invented a temperature scale where 100 originally represented the freezing point of water and 0 represented the boiling point. Jean-Pierre Christin, in 1744 reversed the scale to create the centigrade scale, renamed in 1948 to the Celsius scale in use today. Noted Swedish dramatic poet and actor Johan Celsius was also his brother. a80ced8273 After experimenting, Christin

considered that the mercury thermometer was preferable to the one with alcohol and pronounced in favor of its instrumentation in a conference... a80ced8273 == Astronomy == a80ced8273 During 1772 Jean-André Deluc studied the several substances... a80ced8273 When he returned in 1667, he was named professor in mathematics at the newly founded Lund University; in 1672 he became the principal of that university. He retained this position until 1676 when the university was dissolved because of the Scanian War. During this war he fought on the Swedish side, and he held ground at the fortress in Jönköping. He fought at the Battle of Landskrona in 1677. a80ced8273 Throughout the 19th and the first half of the 20th centuries, the scale was based on 0 °C for the freezing point of water and 100 °C for the boiling point of water at 1 atm pressure. (In Celsius's initial... a80ced8273 == Technical definition == a80ced8273 In 1679, he took up a professorship in astronomy... a80ced8273 Thermodynamic temperature is typically expressed using the Kelvin scale, on which the unit of measurement is the kelvin (unit symbol: K). This unit is the same interval as the degree Celsius, used on the Celsius scale but the scales are offset so that 0 K on the Kelvin scale corresponds to absolute zero. For comparison, a temperature of 295 K corresponds to 21.85 °C and 71.33 °F. Another absolute scale of temperature is the Rankine scale, which is based on the Fahrenheit degree interval. a80ced8273

Thermodynamic temperature precision how water's boiling point varied as a function of atmospheric pressure. He proposed that zero on his temperature scale (water's boiling point) would Thermodynamic temperature, also known as absolute temperature, is a physical quantity that measures temperature starting from absolute zero, the point at which particles have minimal thermal motion a80ced8273

== Change in scale == a80ced8273 Réaumur's thermometer contained diluted alcohol (ethanol) and was constructed on the principle of using 0° for the melting temperature of water, and graduating the tube into degrees, each of which was one-thousandth of the volume contained by the bulb and tube up to the zero mark. He suggested that the concentration of alcohol employed be such that it began boiling at 80 °Ré – that is, when it had expanded in volume by 8%. He chose alcohol instead of mercury because it expands more visibly, but this posed problems: his original thermometers were very bulky, and the low boiling point of alcohol made them unsuitable for many applications. Instrument-makers generally chose different liquids, and then used 80 °Ré to signify the boiling point of water, causing much confusion. a80ced8273 Historically, thermodynamic temperature was defined by Lord Kelvin in terms of a relation between the macroscopic quantities thermodynamic work and heat transfer as defined in thermodynamics, but the kelvin was redefined by international agreement in 2019 in terms of phenomena that are now understood as manifestations of the kinetic energy of free motion of particles such as atoms, molecules,

and electrons. a80ced8273 Thermodynamic temperature can be defined in purely thermodynamic terms using the Carnot... a80ced8273

Fahrenheit Historically, on the Fahrenheit scale the freezing point of water was The Fahrenheit scale () is a temperature scale based on one proposed in 1724 by the physicist Daniel Gabriel Fahrenheit (1686–1736). It uses the degree Fahrenheit (symbol: °F) as the unit. 6 °F less than the modern value due to a later redefinition of the scale). The other limit established was his best estimate of the average human body temperature, originally set at 90 °F, then 96 °F (about 2. ("centigrade" until 1948), which was developed 18 years after the Fahrenheit scale. Several accounts of how he originally defined his scale exist, but the original paper suggests the lower defining point, 0 °F, was established as the freezing temperature of a solution of brine made from a mixture of water, ice, and ammonium chloride (a salt) a80ced8273

The first thermometers used in Lyon were made according to the indications of René Antoine Ferchault de Réaumur, who created the alcohol thermometer in 1730 and applied a graduation divided into 80 parts between the melting point of water (0°) and the boiling point (80°). a80ced8273 == Thermometer of Lyon == a80ced8273 The zeroth law of thermodynamics describes thermal equilibrium between thermodynamic systems in form of an equivalence relation. Accordingly, the set of all thermal systems may be divided into a quotient set of equivalence classes, denoted as a80ced8273