

# 1 Sample

## 1.1 Bacteria

This section is about **bacteria**.

### 1.1.1 First Use

*Clostridium botulinum*, *Pseudomonas putida*, *Clostridium perfringens*, *Bacillus subtilis*, *Clostridium tetani*, *Planifilum composti*, *Planifilum fimeticola*, *Coxiella burnetii*, *Rickettsia australis*, *Rickettsia rickettsii*.

### 1.1.2 Next Use

*C. botulinum*, *P. putida*, *C. perfringens*, *B. subtilis*, *C. tetani*, *P. composti*, *P. fimeticola*, *C. burnetii*, *R. australis*, *R. rickettsii*.

## 1.2 Markup Languages

This section is about **markup languages**.

### 1.2.1 First Use

$\LaTeX$ , markdown, extensible hypertext markup language (XHTML), mathematical markup language (MathML), scalable vector graphics (SVG).

### 1.2.2 Next Use

$\LaTeX$ , markdown, XHTML, MathML, SVG.

## 1.3 Vegetables

This section is about **vegetables**. Cabbage, Brussels sprout, artichoke, cauliflower, courgette, spinach.

## 1.4 Minerals

This section is about **minerals**. Beryl, amethyst, chalcedony, aquamarine, aragonite, calcite, bñilinite, cyanotrichite, biotite, dolomite, quetzalcoatlite, vulcanite.

## 1.5 Animals

This section is about **animals**. Duck, parrot, hedgehog, sea lion, zander, aardvark, zebra, swan, armadillo.

## 1.6 Chemicals

This section is about **chemical formulae**.  $\text{Al}_2(\text{SO}_4)_3$  (aluminium sulfate),  $\text{H}_2\text{O}$  (water),  $\text{C}_6\text{H}_{12}\text{O}_6$  (glucose),  $\text{CH}_3\text{CH}_2\text{OH}$  (ethanol),  $\text{CH}_2\text{O}$  (formaldehyde),  $\text{OF}_2$  (oxygen difluoride),  $\text{O}_2\text{F}_2$  (dioxygen difluoride),  $\text{SO}_4^{2-}$  (sulfate),  $\text{H}_3\text{O}^+$  (hydronium),  $\text{OH}^-$  (hydroxide ion),  $\text{O}_2$  (dioxygen),  $\text{AlF}_3$  (aluminium trifluoride),  $\text{O}$  (oxygen),  $\text{Al}_2\text{CoO}_4$  (cobalt blue),  $\text{As}_4\text{S}_4$  (tetraarsenic tetrasulfide),  $\text{C}_{10}\text{H}_{10}\text{O}_4$  (ferulic acid),  $\text{C}_5\text{H}_4\text{NCOOH}$  (niacin),  $\text{C}_8\text{H}_{10}\text{N}_4\text{O}_2$  ( $\text{C}_8\text{H}_{10}\text{N}_4\text{O}_2$ ),  $\text{SO}_2$  (sulfur dioxide),  $\text{S}_2\text{O}_7^{2-}$  ( $\text{S}_2\text{O}_7^{2-}$ ),  $\text{SbBr}_3$  (antimony(III) bromide),  $\text{Sc}_2\text{O}_3$  (scandium oxide),  $\text{Zr}_3(\text{PO}_4)_4$  (zirconium phosphate),  $\text{ZnF}_2$  (zinc fluoride).

## 1.7 SI Units

Base SI units: A (measures electric current), kg (measures mass), m, s, K, mol, cd.

Derived SI units:  $\text{m}^2$ ,  $\text{m}^3$ ,  $\text{m s}^{-1}$ ,  $\text{m s}^{-2}$ ,  $\text{A m}^{-2}$ ,  $\text{cd m}^{-2}$ ,  $\text{m}^3 \text{kg}^{-1}$ ,  $\text{mol m}^{-3}$ ,  $\text{m}^{-1}$ .

## 1.8 Books and Films

Books: *A Tale of Two Cities* (by Charles Dickens), *The Big Sleep* (by Raymond Chandler, film adaptation: *The Big Sleep*), *Ice Cold in Alex* (by Christopher Landon, film adaptation: *Ice Cold in Alex*), *Why Didn't They Ask Evans?* (by Agatha Christie (Lady Mallowan), film adaptation: *Why Didn't They Ask Evans?*), *Do Androids Dream of Electric Sheep?* (by Philip K. Dick, inspired the film *Blade Runner*).

Films: *The Hobbit: An Unexpected Journey*, *The Hobbit: The Desolation of Smaug* and *The Hobbit: The Battle of Five Armies* (adapted from the book *The Hobbit* by J.R.R. Tolkien), *The Lord of the Rings: The Fellowship of the Ring*, *The Lord of the Rings: The Two Towers* and *The Lord of the Rings: The Return of the King* (adapted from the book *The Lord of the Rings* also by Tolkien).

## 1.9 Miscellaneous Symbols

### 1.9.1 First Use

Media controls: ▶ (play), ▶▶ (next track), ◀◀ (back to start of track), ◀ (rewind).

Information: 🚲 (bicycle route), ☕ (café), ⓘ (information centre), ♀ (Gents), ♀ (Ladies), ♿ (wheelchair access provided), ⚽ (football stadium), ♻️ (recycling centre).

Weather: ☁ (cloudy), 🌫 (foggy), 🌧 (hail), ☀ (sunny), ⚡ (thunderstorm).

## 1.9.2 Next Use

Media controls: ▶, ▶▶, ◀◀, ◀.

Information: 🚲, ☕, 📺, 🧑, 👤, 🗣️, 🏠.

Weather: ☁️, 🌧️, 🌩️, ☀️, ⚡.

## 1.10 Measurements

Measurements: electric current, area, length.

## 2 Glossaries

### Bacteria

*B. subtilis* *Bacillus subtilis*.

*C. botulinum* *Clostridium botulinum*.

*C. burnetii* *Coxiella burnetii*.

*C. perfringens* *Clostridium perfringens*.

*C. tetani* *Clostridium tetani*.

*P. composti* *Planifilum composti*.

*P. fimeticola* *Planifilum fimeticola*.

*P. putida* *Pseudomonas putida*.

*R. australis* *Rickettsia australis*.

*R. rickettsii* *Rickettsia rickettsii*.

### Markup Languages

#### HTML (hypertext markup language)

The standard markup language for creating web pages.

#### LaTeX

A format of **TeX** designed to separate content from style.

#### markdown

A lightweight markup language with plain text formatting syntax.

#### MathML (mathematical markup language)

Markup language for describing mathematical notation.

#### SVG (scalable vector graphics)

**XML**-based vector image format.

#### TeX

A format for describing complex type and page layout often used for mathematics, technical, and academic publications.

#### XHTML (extensible hypertext markup language)

**XML** version of **HTML**.

## XML (extensible markup language)

A markup language that defines a set of rules for encoding documents.

## Vegetables

**artichoke** a variety of thistle cultivated as food.

**Brussels sprout** small leafy green vegetable buds.

**cabbage** vegetable with thick green or purple leaves.

**cauliflower** type of cabbage with edible white flower head.

**courgette** immature fruit of a vegetable **marrow**.

**marrow** long white-fleshed gourd with green skin.

**spinach** green, leafy vegetable.

## Minerals

### A

**amethyst** purple variety of **quartz**.

**aquamarine** light blue variety of **beryl**.

**aragonite** a crystal form of calcium carbonate.

### B

**beryl** composed of beryllium aluminium cyclosilicate.

**bilinite** an iron sulfate mineral.

**biotite** a common phyllosilicate mineral.

### C

**calcite** a crystal form of calcium carbonate.

**chalcedony** cryptocrystalline variety of **quartz**.

**cyanotrichite** a hydrous copper aluminium sulfate mineral.

### D

**dolomite** an anhydrous carbonate mineral.

### Q

**quartz** hard mineral consisting of silica.

**quetzalcoatlite** a rare tellurium oxysalt mineral.

### V

**vulcanite** a rare copper telluride mineral.

## Animals

**aardvark** nocturnal African burrowing mammal.

**armadillo** nocturnal insectivore with large claws.

**duck** a waterbird with webbed feet.

**hedgehog** small nocturnal mammal with a spiny coat and short legs.

**parrot** mainly tropical bird with bright plumage.

**sea lion** a large type of **seal**.

**seal** sea-dwelling fish-eating mammal with flippers.

**swan** a large waterbird with a long flexible neck, short legs, webbed feet and a broad bill.

**zander** large freshwater perch.

**zebra** wild African horse with black-and-white stripes.

## People

**Raymond Chandler** American-British novelist and screenwriter (23rd July 1888–26th March 1959).

**Dame Agatha Mary Clarissa Christie (Lady Mallowan)** English crime novelist and playwright (15th September 1890–12th January 1976).

**Philip K. Dick** American science fiction writer (16th December 1928–2nd March 1982).

**Charles Dickens** English writer and social critic (7th February 1812–9th June 1870).

**Christopher Guy Landon** British novelist and screenwriter (29th March 1911–26th April 1961).

**John Ronald Reuel Tolkien** English writer, poet, philologist, and university professor (3rd January 1892–2nd September 1973).

## Books

*The Big Sleep* novel by Raymond Chandler.

*Do Androids Dream of Electric Sheep?* novel by Philip K. Dick.

*The Hobbit* novel by J.R.R. Tolkien.

*Ice Cold in Alex* novel by Christopher Landon.

*The Lord of the Rings* novel by J.R.R. Tolkien.

*A Tale of Two Cities* novel by Charles Dickens.

*Why Didn't They Ask Evans?* novel by Agatha Christie.

## Films

**The Big Sleep** A film based on the novel *The Big Sleep* (released 1946) featuring Humphrey Bogart & Lauren Bacall.

**Blade Runner** A film loosely based on the novel *Do Androids Dream of Electric Sheep?* (released 1982) featuring Harrison Ford, Rutger Hauer & Sean Young.

**The Hobbit: The Battle of Five Armies** A film based on the novel *The Hobbit* (released 2014) featuring Ian McKellen, Martin Freeman & Richard Armitage.

**The Hobbit: The Desolation of Smaug** A film based on the novel *The Hobbit* (released 2013) featuring Ian McKellen, Martin Freeman & Richard Armitage.

**The Hobbit: An Unexpected Journey** A film based on the novel *The Hobbit* (released 2012) featuring Martin Freeman, Ian McKellen & Richard Armitage.

**Ice Cold in Alex** A film based on the novel *Ice Cold in Alex* (released 1958) featuring John Mills, Anthony Quayle & Sylvia Sims.

**The Lord of the Rings: The Fellowship of the Ring** A film based on the novel *The Lord of the Rings* (released 2001) featuring Elijah Wood, Ian McKellen & Orlando Bloom.

**The Lord of the Rings: The Return of the King** A film based on the novel *The Lord of the Rings* (released 2003) featuring Elijah Wood, Viggo Mortensen & Ian McKellen.

**The Lord of the Rings: The Two Towers** A film based on the novel *The Lord of the Rings* (released 2002) featuring Elijah Wood, Ian McKellen & Viggo Mortensen.

**Why Didn't They Ask Evans?** A film based on the novel *Why Didn't They Ask Evans?* (released 1980) featuring Francesca Annis, John Gielgud & Bernard Miles.

## Chemical Formula

### A

AlF <sub>3</sub>	aluminium trifluoride.
Al <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub>	aluminium sulfate.
Al <sub>2</sub> CoO <sub>4</sub>	cobalt blue.
As <sub>4</sub> S <sub>4</sub>	tetraarsenic tetrasulfide.

### C

CH <sub>2</sub> O	formaldehyde.
CH <sub>3</sub> CH <sub>2</sub> OH	ethanol.
C <sub>5</sub> H <sub>4</sub> NCOOH	niacin.
C <sub>6</sub> H <sub>12</sub> O <sub>6</sub>	glucose.
C <sub>8</sub> H <sub>10</sub> N <sub>4</sub> O <sub>2</sub>	caffeine.
C <sub>10</sub> H <sub>10</sub> O <sub>4</sub>	ferulic acid.

### H

H <sub>2</sub> O	water.
H <sub>3</sub> O <sup>+</sup>	hydronium.

### O

O	oxygen.
OF <sub>2</sub>	oxygen difluoride.
OH <sup>-</sup>	hydroxide ion.
O <sub>2</sub>	dioxygen.
O <sub>2</sub> F <sub>2</sub>	dioxygen difluoride.

### S

SO <sub>2</sub>	sulfur dioxide.
SO <sub>4</sub> <sup>2-</sup>	sulfate.
S <sub>2</sub> O <sub>7</sub> <sup>2-</sup>	disulfate ion.
SbBr <sub>3</sub>	antimony(III) bromide.
Sc <sub>2</sub> O <sub>3</sub>	scandium oxide.

### Z

ZnF <sub>2</sub>	zinc fluoride.
Zr <sub>3</sub> (PO <sub>4</sub> ) <sub>4</sub>	zirconium phosphate.









## Measurements

acceleration	metre per second squared ( $\text{m s}^{-2}$ ).
amount of substance	mole (mol).
area	square metre ( $\text{m}^2$ ).
concentration	mole per cubic metre ( $\text{mol m}^{-3}$ ).
density	ampere per square metre ( $\text{A m}^{-2}$ ).
electric current	ampere (A).
length	metre (m).
luminance	candela per square metre ( $\text{cd m}^{-2}$ ).
luminous intensity	candela (cd).
mass	kilogram (kg).
specific volume	cubic metre per kilogram ( $\text{m}^3 \text{kg}^{-1}$ ).
thermodynamic temperature	kelvin (K).
time	second (s).
velocity	metre per second ( $\text{m s}^{-1}$ ).
volume	cubic metre ( $\text{m}^3$ ).
wave number	per metre ( $\text{m}^{-1}$ ).

## SI Units

A	ampere.
cd	candela.
K	kelvin.
kg	kilogram.
m	metre.
mol	mole.
s	second.

## Information Symbols

	bicycle route.
	café.
	football stadium.
	Gents.
	information centre.
	Ladies.
	recycling centre.
	wheelchair access provided.



## Media Control Symbols

⏮ back to start of track.

⏭ next track.

▶ play.

◀ rewind.

## Weather Symbols

☁ cloudy.

🌫 foggy.

⚡ hail.

☀ sunny.

⚡ thunderstorm.

# Index

## Symbols

- ⏮ (back to start of track), 2, 3, 9
- 🚲 (bicycle route), 2, 3, 8
- ☕ (café), 2, 3, 8
- ☁ (cloudy), 2, 3, 9
- 🌫 (foggy), 2, 3, 9
- ⚽ (football stadium), 2, 3, 8
- ♿ (Gents), 2, 3, 8
- ♿ (hail), 2, 3, 9
- ℹ (information centre), 2, 3, 8
- ♿ (Ladies), 2, 3, 8
- ▶▶ (next track), 2, 3, 9
- ▶ (play), 2, 3, 9
- ♻ (recycling centre), 2, 8
- ◀ (rewind), 2, 3, 9
- ☀ (sunny), 2, 3, 9
- ⚡ (thunderstorm), 2, 3, 9
- ♿ (wheelchair access provided), 2, 3, 8

## A

- aardvark, 2, 6
- acceleration ( $\text{m s}^{-2}$ ), 2, 8
- aluminium sulfate,  $\text{Al}_2(\text{SO}_4)_3$ , 2, 7
- aluminium trifluoride,  $\text{AlF}_3$ , 2, 7
- amethyst, 1, 5
- amount of substance (mol), 2, 8
- ampere (A), 2, 3, 8
- animal, 2
- antimony(III) bromide,  $\text{SbBr}_3$ , 2, 7
- aquamarine, 1, 5
- aragonite, 1, 5
- area ( $\text{m}^2$ ), 2, 3, 8
- armadillo, 2, 6
- artichoke, 1, 5

## B

- Bacillus subtilis*, 1, 4
- back to start of track (⏮), 2, 3, 9
- bacteria, 1
- base SI unit, 2
- beryl, 1, 5
- bicycle route (🚲), 2, 3, 8
- The Big Sleep*, 2, 6, 7
- The Big Sleep* (film), 2, 7
- bilinite, 1, 5
- biotite, 1, 5
- Blade Runner* (film), 2, 7
- book, 2
- Brussels sprout, 1, 5

## C

- cabbage, 1, 5
- café (☕), 2, 3, 8
- caffeine,  $\text{C}_8\text{H}_{10}\text{N}_4\text{O}_2$ , 2, 7
- calcite, 1, 5
- candela (cd), 2, 8
- cauliflower, 1, 5
- chalcedony, 1, 5
- Chandler, Raymond, 2, 6
- chemical formula, 2
- Christie, Agatha, 2, 6
- Clostridium botulinum*, 1, 4
- Clostridium perfringens*, 1, 4
- Clostridium tetani*, 1, 4
- cloudy (☁), 2, 3, 9
- cobalt blue,  $\text{Al}_2\text{CoO}_4$ , 2, 7
- concentration ( $\text{mol m}^{-3}$ ), 2, 8
- courgette, 1, 5
- Coxiella burnetii*, 1, 4
- cyanotrichite, 1, 5

## D

density ( $\text{A m}^{-2}$ ), 2, 8  
derived SI unit, 2  
Dick, Philip K., 2, 6  
Dickens, Charles, 2, 6  
dioxygen,  $\text{O}_2$ , 2, 7  
dioxygen difluoride,  $\text{O}_2\text{F}_2$ , 2, 7  
disulfate ion,  $\text{S}_2\text{O}_7^{2-}$ , 2, 7  
*Do Androids Dream of Electric Sheep?*, 2, 6, 7  
dolomite, 1, 5  
duck, 2, 6

## E

electric current (A), 2, 3, 8  
ethanol,  $\text{CH}_3\text{CH}_2\text{OH}$ , 2, 7  
extensible hypertext markup language (XHTML), 1, 4  
extensible markup language (XML), 4, 5

## F

ferulic acid,  $\text{C}_{10}\text{H}_{10}\text{O}_4$ , 2, 7  
film, 2  
foggy (☁), 2, 3, 9  
football stadium (⚽), 2, 3, 8  
formaldehyde,  $\text{CH}_2\text{O}$ , 2, 7

## G

Gents (♠), 2, 3, 8  
glucose,  $\text{C}_6\text{H}_{12}\text{O}_6$ , 2, 7

## H

hail (⚡), 2, 3, 9  
hedgehog, 2, 6  
*The Hobbit*, 2, 6, 7  
*The Hobbit: The Battle of Five Armies* (film), 2, 7  
*The Hobbit: The Desolation of Smaug* (film), 2, 7  
*The Hobbit: An Unexpected Journey* (film), 2, 7

hydronium,  $\text{H}_3\text{O}^+$ , 2, 7  
hydroxide ion,  $\text{OH}^-$ , 2, 7  
hypertext markup language (HTML), 4

## I

*Ice Cold in Alex*, 2, 6, 7  
*Ice Cold in Alex* (film), 2, 7  
information, 2, 3  
information centre (ℹ), 2, 3, 8

## K

kelvin (K), 2, 8  
kilogram (kg), 2, 8

## L

Ladies (♠), 2, 3, 8  
Landon, Christopher, 2, 6  
L<sup>A</sup>T<sub>E</sub>X, 1, 4  
length (m), 2, 3, 8  
lettsomite, *see* cyanotrichite  
*The Lord of the Rings*, 2, 6, 7  
*The Lord of the Rings: The Fellowship of the Ring* (film), 2, 7  
*The Lord of the Rings: The Return of the King* (film), 2, 7  
*The Lord of the Rings: The Two Towers* (film), 2, 7  
luminance ( $\text{cd m}^{-2}$ ), 2, 8  
luminous intensity (cd), 2, 8

## M

markdown, 1, 4  
markup language, 1  
marrow, 5  
mass (kg), 2, 8  
mathematical markup language (MathML), 1, 4  
measurement, 3  
media control, 2, 3  
metre (m), 2, 3, 8  
mineral, 1  
mole (mol), 2, 8

## N

next track (▶▶), 2, 3, 9  
niacin, C<sub>5</sub>H<sub>4</sub>NCOOH, 2, 7

## O

oxygen, O, 2, 7  
oxygen difluoride, OF<sub>2</sub>, 2, 7

## P

parrot, 2, 6  
*Planifilum composti*, 1, 4  
*Planifilum fimeticola*, 1, 4  
play (▶), 2, 3, 9  
*Pseudomonas putida*, 1, 4

## Q

quartz, 5  
quetzalcoatlite, 1, 5

## R

recycling centre (♻), 2, 8  
rewind (◀), 2, 3, 9  
*Rickettsia australis*, 1, 4  
*Rickettsia rickettsii*, 1, 4

## S

scalable vector graphics (SVG), 1, 4  
scandium oxide, Sc<sub>2</sub>O<sub>3</sub>, 2, 7  
sea lion, 2, 6  
seal, 6  
second (s), 2, 8  
specific volume (m<sup>3</sup> kg<sup>-1</sup>), 2, 8  
spinach, 1, 5

sulfate, SO<sub>4</sub><sup>2-</sup>, 2, 7  
sulfur dioxide, SO<sub>2</sub>, 2, 7  
sunny (☀), 2, 3, 9  
swan, 2, 6

## T

*A Tale of Two Cities*, 2, 6  
tetraarsenic tetrasulfide, As<sub>4</sub>S<sub>4</sub>, 2, 7  
T<sub>E</sub>X, 4  
thermodynamic temperature (K), 2, 8  
thunderstorm (⚡), 2, 3, 9  
time (s), 2, 8  
Tolkien, J.R.R., 2, 6

## V

vegetable, 1  
velocity (m s<sup>-1</sup>), 2, 8  
volume (m<sup>3</sup>), 2, 8  
vulcanite, 1, 5

## W

water, H<sub>2</sub>O, 2, 7  
wave number (m<sup>-1</sup>), 2, 8  
weather, 2, 3  
wheelchair access provided (♿), 2, 3, 8  
*Why Didn't They Ask Evans?*, 2, 6, 7  
*Why Didn't They Ask Evans?* (film), 2, 7

## Z

zander, 2, 6  
zebra, 2, 6  
zinc fluoride, ZnF<sub>2</sub>, 2, 7  
zirconium phosphate, Zr<sub>3</sub>(PO<sub>4</sub>)<sub>4</sub>, 2, 7  
zucchini, *see courgette*