

Precipitation

a. What precipitation explain

In meteorology, precipitation is any product of the condensation of atmospheric water vapour that falls under gravity from clouds. The main forms of precipitation include drizzle, rain, sleet, snow, ice pellets, graupel and hail. ... Short, intense periods of rain in scattered locations are called "showers."

b. What is precipitation short answer

precipitation. Precipitation is rain, snow, sleet, or hail — any kind of weather condition where something's falling from the sky. Precipitation has to do with things falling down, and not just from the sky. It's also what happens in chemical reactions when a solid settles to the bottom of a solution.

C. Explanation of Precipitation

precipitation is any product of the **condensation** of atmospheric **water vapour** that falls under gravity from clouds.^[2] The main forms of precipitation include drizzle, rain, **sleet**, snow, **ice pellets**, **graupel** and **hail**. Precipitation occurs when a portion of the atmosphere becomes saturated with water vapor (reaching 100% **relative humidity**), so that the water condenses and "precipitates". Thus, fog and mist are not precipitation but suspensions, because the water vapor does not condense sufficiently to precipitate. Two processes, possibly acting together, can lead to air becoming saturated: cooling the air or adding water vapor to the air. Precipitation forms as smaller droplets coalesce via collision with other rain drops or ice crystals within a cloud. Short, intense periods of rain in scattered locations are called "showers."^[3]

Moisture that is lifted or otherwise forced to rise over a layer of sub-freezing air at the surface may be condensed into clouds and rain. This process is typically active when freezing rain occurs. A **stationary front** is often present near the area of freezing rain and serves as the focus for forcing and rising air. Provided necessary and sufficient atmospheric moisture content, the moisture within the rising air will condense into clouds, namely **stratus** and **cumulonimbus**. Eventually, the cloud droplets will grow large enough to form raindrops and descend toward the Earth where they will freeze on contact with exposed objects. Where relatively warm water bodies are present, for example due to water evaporation from lakes, **lake-effect snowfall** becomes a concern downwind of the warm lakes within the cold **cyclonic** flow around the backside of **extratropical cyclones**. Lake-effect snowfall can be locally heavy. **Thundersnow** is possible within a cyclone's **comma head** and within lake effect precipitation bands. In mountainous areas, heavy precipitation is possible where upslope flow is maximized within **windward** sides of the terrain at elevation. On the leeward side of mountains, desert climates can exist due to the dry air caused by compressional heating. Most precipitation occurs within the tropics^[4] and is caused by **convection**. The movement of the **monsoon trough**, or **intertropical convergence zone**, brings **rainy seasons** to **savannah** regions.

Precipitation is a major component of the **water cycle**, and is responsible for depositing the **fresh water** on the planet. Approximately 505,000 cubic kilometres (121,000 cu mi) of water falls as precipitation each year; 398,000 cubic kilometres (95,000 cu mi) of it over the oceans and 107,000 cubic kilometres (26,000 cu mi) over land.^[5] Given the Earth's surface area, that means the globally averaged annual precipitation is 990 millimetres (39 in), but over land it is only 715 millimetres (28.1 in). Climate classification systems such as the **Köppen climate classification** system use average annual rainfall to help differentiate between differing climate regimes.

Precipitation may occur on other celestial bodies, e.g. when it gets cold, Mars has precipitation **which most likely takes the form of frost, rather than rain or snow.**^[1]

d. What affects Precipitation

The 3 main factors that affect precipitation are prevailing winds, the presence of mountains, and seasonal winds.

e. What causes precipitation

Precipitation occurs when water droplets or crystals condense out of air saturated with water vapor and fall from the sky to the ground. It may occur when evaporation causes the amount of water vapor in the air to increase or when air cools and its capacity to hold water decreases. Precipitation comes from cloud.

f. What affects precipitation and temperature

Different areas of the Earth's surface receive different amounts of precipitation. Latitude: it rains more in the areas near the equator than in the temperate zones and polar regions. The temperature is higher near the Equator so there is more evaporation. Altitude: it rains more in high areas than in low areas.

g. Chemical disinfection

Chemical disinfectants are chemical substances which are used to kill or deactivate pathogenic microorganisms. Examples are: Chlorine. Sodium hypochlorite. Chlorine dioxide.

h. What products are used for chemical disinfection

The three chemicals most commonly used as primary disinfectants are chlorine, chlorine dioxide and ozone. Monochloramine, usually referred to as chloramine, is used as a residual disinfectant for distribution.

i. What are the three levels of disinfection

There are three levels of disinfection: high, intermediate, and low. The high-level disinfection (HLD) process kills all vegetative microorganisms, mycobacteria, lipid and nonlipid viruses, fungal spores, and some bacterial spores.

j. What are 2 methods of disinfection

Generally, two methods of disinfection are used: chemical and physical. The chemical methods, of course, use chemical agents, and the physical methods use physical agents. Historically, the most widely used chemical agent is chlorine.

k. Does alcohol kill microbacteria

In tests of the effect of ethyl alcohol against *M. tuberculosis*, 95% ethanol killed the tubercle bacilli in sputum or water suspension within 15 seconds. ... Isopropyl alcohol (20%) is effective in killing the cysts of *Acanthamoeba culbertsoni* (560) as are chlorhexidine, hydrogen peroxide, and thimerosal.

I. Why are disinfectant used?

Disinfectants are chemical substances used to destroy viruses and microbes (germs), such as bacteria and fungi, as opposed to an antiseptic which can prevent the growth and reproduction of various microorganisms, but does not destroy them.

m. What is thermal disinfection?

Thermal disinfection is a method of disinfection which relies on moist heat to kill bacteria and viruses by exposure to a specific temperature for a set amount of time. The high-temperature Thermal Disinfection process can destroy the proteins in viruses and bacteria and render them as dead or inert.

n. What is filtration processes

Filtration is the process of separating suspended solid matter from a liquid, by causing the latter to pass through the pores of some substance, called a filter. The liquid which has passed through the filter is called the filtrate.

o. What is filtration with examples

Examples of filtration include. The coffee filter to keep the coffee separate from the grounds. HEPA filters in air conditioning to remove particles from air. Belt filters to extract precious metals in mining. Horizontal plate filter, also known as Sparkler filter.

p. What are the 3 types of filtration

As one of the key components of an aquarium, filtration is responsible for moving and cleaning the tank water, making it safe for fish to live in. The three main types of filtration are mechanical, biological, and chemical filtration.

q. What is chemical filtration

The chemical method of filtration removes dissolved particulates from the aquarium via activated carbons, resins, and other adsorbents. Chemical filtration media helps to maintain water quality as unwanted dissolved matter adheres to it. The two most popular forms of chemical media are activated carbon and resins.

r.High temperature

s. UV- light