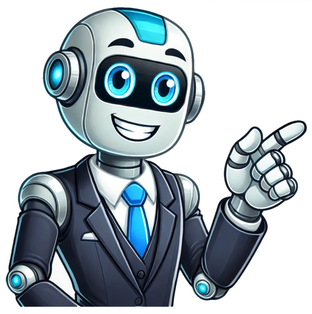
I'm not a bot



Ideogram that conveys its meaning through its pictorial resemblance to a physical objectThis article needs additional citations for verification. Please help improve this article by adding citations to reliable sources. Unsourced material may be challenged and removed.Find sources:"Pictogram"news newspapers books scholar JSTOR (November 2006) (Learn how and when to remove this message)Sample National Park Service pictogramsA pictogram (also pictogramme, pictograph, or simply picto[1]) is a graphical symbol that conveys meaning through its visual resemblance to a physical object. Pictograms are used in systems of writing and visual communication. A pictography is a writing system[2] which uses pictograms. Some pictograms, such as hazard pictograms, may be elements of formal languages.In the field of prehistoric art, the term "pictograph" has a different definition, and specifically refers to art painted on rock surfaces. Pictographs are contrasted with petroglyphs, which are carved or incised.Small pictograms displayed on a computer screen in order to help the user navigate are called icons.Early written symbols were based on pictograms (pictures which resemble what they signify) and ideograms (symbols which represent ideas). Ancient Sumerian, Egyptian, and Chinese civilizations began to adapt such symbols to represent concepts, developing them into logographic writing systems. Pictograms are still in use as the main medium of written communication in some non-literate cultures in Africa, the Americas, and Oceania.[citation needed] Pictograms are often used as simple, pictorial, representational symbols by most contemporary cultures.Pictograms can be considered an art form, or can be considered a written language and are designated as such in Pre-Columbian art, Native American art, Ancient Mesopotamia and Painting in the Americas before Colonization.[3][4] One example of many is the Rock art of the Chumash people, part of the Native American history of California.In 2011, UNESCO's World Heritage List added "Petroglyph Complexes of the Mongolian Altai, Mongolia"[5] to celebrate the importance of the pictograms engraved in rocks.Some scientists in the field of neuropsychiatry and neuropsychology, such as Mario Christian Meyer, are studying the symbolic meaning of indigenous pictographs and petroglyphs,[6] aiming to create new ways of communication between native people and modern scientists to safeguard and valorize their cultural diversity.[7]Ojibwa pictographs on cliff-face at Agawa Rock, Lake Superior Provincial Park of a boat and Mishipeshu, an animal with horns, painted with red ochreSeveral prehistoric engravings can be found around La Silla Observatory.[8]Native American pictographs from the Great Gallery, Horseshoe Canyon, Canyonlands National ParkWater, rabbit, deer pictograms on a replica of an Aztec Stone of the SunAn early modern example of the extensive use of pictograms may be seen in the map in the London suburban timetables of the London and North Eastern Railway, 19361947, designed by George Dow, in which a variety of pictograms was used to indicate facilities available at or near each station. Pictograms remain in common use today, serving as pictorial, representational signs, instructions, or statistical diagrams. Because of their graphical nature and fairly realistic style, they are widely used to indicate public toilets, or places such as airports and train stations. Because they are a concise way to communicate a concept to people who speak many different languages, pictograms have also been used extensively at the Olympics since the 1964 summer games in Tokyo featured designs by Masaru Katsumi[fr]. Later Olympic pictograms have been redesigned for each set of games.[9][10][11]Pictographic writing as a modernist poetic technique is credited to Ezra Pound, though French surrealists credit the Pacific Northwest American Indians of Alaska who introduced writing, via totem poles, to North America.[12]Contemporary artist Xu Bing created Book from the Ground, a universal language made up of pictograms collected from around the world. A Book from the Ground chat program has been exhibited in museums and galleries internationally.Emojis are a type of pictogram.A compound pictogram showing the breakdown of the survivors and deaths of the maiden voyage of the RMS Titanic by class and age/genderIn statistics, pictograms are charts in which icons represent numbers to make it more interesting and easier to understand. A key is often included to indicate what each icon represents. All icons must be of the same size, but a fraction of an icon can be used to show the respective fraction of that amount.[13]For example, the following table:DayLetters sentMonday10Tuesday17Wednesday29Thursday41Friday18can be graphed as follows:DayLetterssentMondayTuesdayWednesdayThursdayFridayKey: = 10 letters; = 5 lettersAs the values are rounded to the nearest 5 letters, the second icon on Tuesday is the left half of the original.Pictograms can often transcend languages in that they can communicate to speakers of a number of tongues and language families equally effectively, even if the languages and cultures are completely different. This is why road signs and similar pictographic material are often applied as global standards expected to be understood by nearly all.A standard set of pictograms was defined in the international standard ISO 7001: Public Information Symbols. Other common sets of pictographs are the laundry symbols used on clothing tags and the chemical hazard symbols as standardized by the GHS system.Pictograms have been popularized in use on the Internet and in software, better known as "icons" displayed on a computer screen in order to help user navigate a computer system or mobile device.A pictographic traffic sign (top) warning motorists of horses and ridersBritish Rail passenger safety pictograms at the end of the platform at Meols railway stationThis highly influential pictogram design was introduced at the 1972 Munich Olympics, although pictograms first began to appear in the games at Tokyo in 1964.Bouba/kiki effectCrop artEmoticonEmojiIcon (computing)IdeasthesiaIdeogramList of Stone Age artList of symbolsList of writing systems Pictographic/ideographic writing systemsPecked curvilinear nucleatedPetroformPetroglyphRebusRoad signRock artRock art of the Chumash peopleSound symbolismStick figure, in artSymbolTraffic signWarning signYakima Indian Painted Rocks^ Gove, Philip Babcock. 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From Totems to Hip-Hop: A Multicultural Anthology of Poetry Across the Americas, 19002002, Ishmael Reed, ed. ISBN1-56025-458-0.Wikimedia Commons has media related to Pictograms.Look up pictogram in Wiktionary, the free dictionary.Pictogram & Communication: About 1,500 practical pictograms based on Design principles of pictorial symbols for communication support(JIS T 0103:2005)CAPL:The Culturally Authentic Pictorial Lexicon, photographic illustrations of objects for multiple languagesPictogram Encyclopedia, The collection site of more than 500 pictograms, Pictograms are categorized, and easy to find unique pictogramPictopen - Modern Pictographic WritingNounProject - Free Pictograms under open licencesModern Pictograms - Explore word and pictogram relationshipsWolfram|Alpha - Number to pictogram translatorRetrieved from " hazard signs are essential tools for workplace safety. They provide clear visual warnings about potential dangers associated with chemicals and help prevent accidents, injuries, and environmental damage. Understanding these signs is critical for ensuring compliance with safety regulations and protecting workers.In this article, we will discuss 13 common chemical hazard signs found in workplaces and their meanings, following global standards like the Globally Harmonized System of Classification and Labelling of Chemicals (GHS).Common Chemical Hazard Signs, Symbols, and Their MeaningsChemical hazard signs and symbols are essential for identifying and mitigating risks associated with hazardous chemicals. Here are 13 common chemical hazard signs and symbols, along with their meanings:1. Exploding BombThe Exploding Bomb symbol is a hazard pictogram used to indicate that a chemical poses explosion or reactivity hazards. This symbol is part of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS), which standardizes hazard communication worldwide.Appearance:The symbol depicts an exploding bomb, with fragments radiating outward, set against a white background and enclosed within a red diamond-shaped border.Meaning: This symbol warns that the substance is:Explosive: Capable of causing an explosion under certain conditions.Self-Reactive: Can undergo a strongly exothermic decomposition even without the presence of oxygen (air).Organic Peroxide: Thermally unstable compounds that may undergo exothermic self-accelerating decomposition.Examples of Substances:Explosives: Such as TNT or dynamite.Self-Reactive Chemicals: Certain laboratory reagents that can decompose violently.Organic Peroxides: Used in various industrial processes, like benzoyl peroxide.Potential Hazards:Explosion Risk: Can cause severe physical injury, death, and property damage.Fire Hazard: May ignite easily and burn rapidly.Reactivity: Can react violently under certain conditions, such as exposure to heat, shock, or friction.Safety Precautions:Storage: Store in a cool, dry, and well-ventilated area away from incompatible materials.Handling: Handle with care, avoiding shock, friction, and exposure to heat.Personal Protective Equipment (PPE): Use appropriate PPE, including gloves and eye protection.Training: Ensure all personnel are trained in proper handling and emergency procedures related to these substances.Recognizing the Exploding Bomb symbol is crucial for maintaining safety in environments where explosive or highly reactive chemicals are present. Adhering to recommended safety measures can significantly reduce the risk of accidents and injuries associated with these substances.2. FlameThe Flame symbol is a hazard pictogram used to indicate that a chemical poses fire-related hazards. This symbol is part of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS), which standardizes hazard communication worldwide.Appearance:The symbol depicts a black flame on a white background, enclosed within a red diamond-shaped border.Meaning: This symbol warns that the substance is:Flammable: Can ignite easily under normal working conditions.Pyrophoric: Can ignite spontaneously when exposed to air.Self-Heating: Liable to self-heat and ignite without an external heat source.Emits Flammable Gas: In contact with water, releases flammable gases.Self-Reactive: Can undergo a strongly exothermic decomposition even without the presence of oxygen (air).Organic Peroxide: Thermally unstable compounds that may undergo exothermic self-accelerating decomposition.Examples of Substances:Flammable Gases: Propane, butane.Flammable Liquids: Ethanol, acetone.Flammable Solids: Sulfur, magnesium.Pyrophoric Materials: White phosphorus.Self-Heating Substances: Certain metal powders.Substances that Emit Flammable Gases: Calcium carbide (reacts with water to produce acetylene gas).Organic Peroxides: Benzoyl peroxide.Potential Hazards:Fire Risk: High potential for causing fires if exposed to ignition sources such as open flames, sparks, or heat.Explosion Hazard: Some flammable substances can cause explosions under certain conditions.Health Risks: Exposure to flames or explosions can lead to burns, respiratory issues, or other injuries.Safety Precautions:Storage: Store in a cool, well-ventilated area away from ignition sources and incompatible materials.Handling: Use non-sparking tools and ensure proper grounding and bonding when transferring flammable liquids.Personal Protective Equipment (PPE): Wear appropriate PPE, including flame-resistant clothing, gloves, and eye protection.Training: Ensure all personnel are trained in proper handling, storage, and emergency procedures related to flammable substances.Recognizing the Flame symbol is crucial for maintaining safety in environments where flammable chemicals are present. Adhering to recommended safety measures can significantly reduce the risk of fires, explosions, and associated injuries.3. Flame Over CircleThe Flame Over Circle symbol is a hazard pictogram used to indicate that a chemical poses oxidizing hazards. This symbol is part of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS), standardizing worldwide hazard communication.Appearance:The symbol depicts a black flame positioned above a black circle, set against a white background and enclosed within a red diamond-shaped border.Meaning: This symbol warns that the substance is an oxidizer, which means it can:Cause or Intensify Fire: Oxygen can enhance the combustion of other materials.Cause Explosion: When in contact with flammable or combustible materials, it can lead to explosive reactions.Examples of Substances:Oxidizing Gases: Oxygen, chlorine.Oxidizing Liquids: Hydrogen peroxide, nitric acid.Oxidizing Solids: Potassium permanganate, ammonium nitrate.Potential Hazards:Fire Risk: Oxidizers can cause combustible materials to ignite more easily and burn more fiercely.Explosion Hazard: Mixing oxidizers with flammable substances can lead to explosive reactions.Health Risks: Exposure to oxidizers can cause skin and eye irritation or burns.Safety Precautions:Storage: Store oxidizers separately from flammable and combustible materials in a cool, dry, well-ventilated area.Handling: Avoid contamination with incompatible materials and handle with clean, dry equipment.Personal Protective Equipment (PPE): Wear appropriate PPE, including gloves, eye protection, and lab coats.Training: Ensure all personnel are trained in the proper handling, storage, and emergency procedures related to oxidizing substances.Recognizing the Flame Over Circle symbol is crucial for maintaining safety in environments with oxidizing chemicals. Adhering to recommended safety measures can significantly reduce the risk of fires, explosions, and associated injuries.4. Gas CylinderThe Gas Cylinder symbol is a hazard pictogram used to indicate that a chemical is a gas under pressure. This symbol is part of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS), which standardizes hazard communication worldwide.Appearance:The symbol depicts a black gas cylinder on a white background, enclosed within a red diamond-shaped border.Meaning: This symbol warns that the substance is a gas under pressure, which includes:Compressed Gas: Gas stored under pressure.Liquefied Gas: Gas that has been converted into a liquid state under pressure.Refrigerated Liquefied Gas: Gas that is liquefied at low temperatures.Dissolved Gas: Gas dissolved under pressure in a solvent.Examples of Substances:Compressed Gas: Oxygen cylinders used in medical facilities.Liquefied Gas: Propane tanks used for heating or cooking.Refrigerated Liquefied Gas: Liquid nitrogen used in cryogenic applications.Dissolved Gas: Acetylene dissolved in acetone for welding purposes.Potential Hazards:Explosion Risk: Gas cylinders may explode if heated or damaged.Physical Hazards: High-pressure gas release can turn cylinders into projectiles.Health Risks: Depending on the gas, risks include asphyxiation, toxicity, or cryogenic burns.Safety Precautions:Storage: Store cylinders upright in a well-ventilated area, away from heat sources and secured to prevent tipping.Handling: Use appropriate equipment for moving cylinders and avoid dropping or striking them.Personal Protective Equipment (PPE): Wear suitable PPE, such as gloves and eye protection, especially when handling cryogenic gases.Training: Ensure all personnel are trained in the proper handling, storage, and emergency procedures related to gases under pressure.Recognizing the Gas Cylinder symbol is crucial for maintaining safety in environments where gases under pressure are present. Adhering to recommended safety measures can significantly reduce the risk of accidents and injuries associated with these substances.5. CorrosionThe Corrosion chemical hazard sign is a pictogram used to indicate substances that can cause severe damage to metals, skin, and eyes. This symbol is part of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS), which standardizes hazard communication worldwide.Appearance: The symbol features an image of two test tubes pouring liquid:One liquid is shown damaging a metal surface.The other is shown burning a hand. This imagery is enclosed within a red diamond-shaped border on a white background.Meaning: The Corrosion hazard sign warns that the substance can:Cause severe skin burns and eye damage.Corrode metals, leading to structural or equipment damage.Examples of Corrosive Substances:Acids: Sulfuric acid, hydrochloric acid.Bases (Alkalis): Sodium hydroxide, potassium hydroxide.Other Corrosives: Ammonia solutions, bleach.Potential Hazards:Severe skin burns and eye injuries upon contact.Respiratory tract irritation if inhaled.Corrosion of metal equipment, containers, or structures.Safety Precautions:Personal Protective Equipment (PPE): Wear appropriate gloves, safety goggles, face shields, and protective clothing.Storage: Keep corrosive substances in suitable, labeled containers made of compatible materials.Handling: Use in well-ventilated areas, and avoid inhaling fumes.Emergency Measures: Ensure access to emergency eyewash stations and safety showers in areas where corrosives are used.Recognizing the Corrosion hazard sign is crucial for maintaining safety in environments where hazardous chemicals are present. Proper handling, storage, and use of personal protective equipment can mitigate the risks associated with corrosive substances.6. Skull and CrossbonesThe Skull and Crossbones sign is a universally recognized hazard symbol indicating the presence of substances with acute toxicity. Exposure to these substances can lead to severe health effects or even death, depending on the chemical and the route of exposure, such as inhalation, ingestion, or skin contact.Appearance:The symbol depicts a human skull with two crossed bones beneath it, set against a white background and enclosed within a red diamond-shaped border.Meaning:This symbol warns that the chemical can cause serious health effects or death if ingested, inhaled, or absorbed through the skin.Examples of Substances:Poisons: Such as certain pesticides and cyanides.Highly Concentrated Acids: Like hydrofluoric acid.Industrial Solvents: Such as methanol.Potential Hazards:Immediate Health Effects: Including nausea, vomiting, respiratory distress, convulsions, or death.Environmental Impact: Some of these substances may also pose significant risks to the environment.Safety Precautions:Personal Protective Equipment (PPE): Use appropriate gloves, safety goggles, and protective clothing when handling these substances.Storage: Keep in clearly labeled, secure containers away from incompatible materials.Handling: Follow strict protocols to avoid exposure, including using proper ventilation and handling equipment.Training: Ensure all personnel are trained in the hazards and emergency procedures related to these substances.Recognizing the Skull and Crossbones symbol is crucial for maintaining safety in environments where highly toxic substances are present. Adhering to recommended safety measures can significantly reduce the risk of exposure and associated health hazards.7. Exclamation MarkThe Exclamation Mark symbol is part of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS). It indicates that a chemical poses certain health hazards, typically less severe than those signified by symbols like the Skull and Crossbones or Corrosion pictograms.Appearance:A black exclamation mark (!) centered on a white background, framed within a red diamond-shaped border.Meaning: This symbol warns that the substance may cause:Acute Toxicity (Category 4): Harmful if swallowed, inhaled, or in contact with skin.Skin Irritation (Category 2): Causes skin irritation.Eye Irritation (Category 2A): Causes serious eye irritation.Skin Sensitization (Categories 1, 1A, 1B): May cause an allergic skin reaction.Specific Target Organ Toxicity Single Exposure (Category 3): May cause respiratory tract irritation or narcotic effects, such as drowsiness or dizziness.Hazardous to the Ozone Layer (Category 1): May be harmful to the ozone layer.Examples of Substances:Cleaning Products: Certain detergents and disinfectants.Solvents: Such as acetone or turpentine.Pesticides: Some insecticides and herbicides.Potential Hazards:Health Effects: Irritation to skin, eyes, or respiratory tract; allergic reactions; drowsiness or dizziness.Environmental Impact: Potential harm to the ozone layer.Safety Precautions:Personal Protective Equipment (PPE): Use appropriate gloves, eye protection, and face protection.Handling: Avoid breathing dust, fumes, gas, mist, vapors, or spray.Storage: Keep container tightly closed in a well-ventilated place.Disposal: Dispose of contents and container in accordance with local, regional, national, and international regulations.Recognizing the Exclamation Mark symbol is essential for identifying chemicals that may cause less severe health effects. By following recommended safety measures, individuals can minimize risks associated with these substances.8. Health HazardThe Health Hazard symbol is part of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS). It indicates that a substance poses serious health risks, often with long-term effects.Appearance:A black silhouette of a human figure with a star-shaped burst on the chest, set against a white background and enclosed within a red diamond-shaped border.Meaning: This symbol warns that the chemical may cause:Carcinogenicity: May cause cancer.Respiratory Sensitization: May cause allergy or asthma symptoms or breathing difficulties if inhaled.Reproductive Toxicity: May damage fertility or the unborn child.Target Organ Toxicity: Causes damage to organs through prolonged or repeated exposure.Mutagenicity: May cause genetic defects.Aspiration Hazard: May be fatal if swallowed and enters airways.Examples of Substances:Asbestos: Known to cause cancer.Formaldehyde: May cause respiratory issues and is a suspected carcinogen.Benzene: Can cause genetic defects and cancer.Potential Hazards:Chronic Health Effects: Long-term exposure can lead to serious health conditions, including cancer, organ damage, and respiratory issues.Reproductive Harm: Potential to affect fertility or harm the unborn child.Safety Precautions:Personal Protective Equipment (PPE): Use appropriate gloves, protective clothing, and eye/face protection.Engineering Controls: Ensure adequate ventilation or use local exhaust to minimize exposure.Handling: Avoid breathing dust, fumes, gas, mist, vapors, or spray.Storage: Store locked up and away from incompatible materials.Disposal: Dispose of contents and container in accordance with local, regional, national, and international regulations.Recognizing the Health Hazard symbol is crucial for identifying chemicals that pose serious health risks. Implementing appropriate safety measures can significantly reduce the potential for adverse health effects associated with these substances.9. Environment (Non-Mandatory GHS Symbol)The Environment pictogram is part of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS). It serves as a warning that a chemical poses environmental hazards, particularly to aquatic life. Notably, this is the only GHS symbol that is not mandatory under certain regulations, such as those of the Occupational Safety and Health Administration (OSHA) in the United States.Appearance:The symbol depicts a dead tree and a dead fish on a white background, enclosed within a red diamond-shaped border.Meaning: This pictogram indicates that the chemical can cause:Acute Aquatic Toxicity: Immediate harmful effects to aquatic organisms.Chronic Aquatic Toxicity: Long-term adverse effects on aquatic environments.Examples of Substances:Pesticides: Certain insecticides and herbicides.Industrial Chemicals: Such as heavy metals like mercury and lead.Pharmaceuticals: Some drugs that can contaminate water sources.Potential Hazards:Ecosystem Damage: Harm to aquatic plants and animals, disrupting food chains.Bioaccumulation: Build-up of toxic substances in organisms over time.Water Contamination: Polluting water bodies, making them unsafe for human use and wildlife.Safety Precautions:Handling: Prevent spills and leaks into the environment.Storage: Store in appropriate containers to avoid environmental release.Disposal: Follow regulations for disposing of hazardous substances to prevent environmental contamination.Recognizing the Environment pictogram is crucial for preventing ecological damage. Even though its use may not be mandatory in all jurisdictions, understanding its significance helps in implementing proper safety and environmental protection measures.10. Biohazard SymbolThe Biohazard symbol is a universally recognized icon that signifies the presence of biological substances that pose a threat to human or environmental health. It serves as a warning to individuals to take necessary precautions to avoid exposure to harmful biological agents.Appearance:The symbol consists of three interlocking circles with a central circle, creating a trefoil pattern. It is typically presented in black on a yellow or orange background, though variations in color may occur depending on specific regulations or contexts.Meaning:The Biohazard symbol indicates the presence of biological materials that can cause infection or disease in living organisms. This includes bacteria, viruses, toxins, and other pathogens.Examples of Biohazardous Materials:Human Blood and Body Fluids: Potentially containing bloodborne pathogens like HIV or hepatitis.Microbiological Wastes: Cultures and stocks of infectious agents from laboratories.Pathological Wastes: Human tissues, organs, and body parts.Sharps Waste: Contaminated needles, scalpels, and other sharp instruments.Potential Hazards:Infection Risk: Exposure can lead to serious infections or diseases.Environmental Contamination: Improper disposal can harm ecosystems.Public Health Threats: Can lead to outbreaks if not properly contained.Safety Precautions:Personal Protective Equipment (PPE): Use gloves, gowns, masks, and eye protection when handling biohazardous materials.Proper Disposal: Follow protocols for disposing of biohazardous waste in designated containers.Decontamination: Clean and disinfect surfaces and equipment that have come into contact with biohazards.Training: Ensure all personnel are trained in biohazard safety and emergency procedures.Historical Context:The Biohazard symbol was developed in 1966 by Charles Baldwin, an environmental health engineer working for the Dow Chemical Company. The goal was to create a memorable but meaningless symbol, allowing people to be educated on its meaning without prior associations.Recognizing the Biohazard symbol is crucial for maintaining safety in environments with biological hazards. Adhering to recommended safety measures can significantly reduce the risk of exposure and associated health hazards.11. Radiation Hazard SymbolThe Radiation Hazard Symbol, commonly known as the trefoil, is an internationally recognized icon that signifies the presence of ionizing radiationa type of energy released by atoms that can be harmful to living tissue. This symbol serves as a critical warning to prevent accidental exposure to radioactive materials.Appearance:The symbol consists of three black or magenta blades radiating from a central circle, forming a trefoil shape. It is typically set against a yellow background for high visibility.Meaning:The trefoil symbol alerts individuals to the presence of ionizing radiation, indicating that specific precautions are necessary to avoid harmful exposure.Examples of Use:Medical Facilities: Areas housing X-ray machines or radiation therapy equipment.Industrial Sites: Locations with radiography devices or nuclear gauges.Research Laboratories: Environments utilizing radioactive isotopes.Nuclear Power Plants: Zones where radioactive materials are processed or stored.Potential Hazards:Health Risks: Exposure to ionizing radiation can lead to acute effects like radiation sickness and long-term consequences such as cancer.Environmental Impact: Improper handling can result in contamination of ecosystems.Safety Precautions:Access Control: Restrict entry to authorized and trained personnel.Protective Equipment: Use appropriate shielding and personal protective gear.Monitoring: Employ radiation detection instruments to assess exposure levels.Training: Ensure individuals working with or around radiation sources are adequately trained in safety protocols.Supplementary Warning Symbol:In 2007, the International Atomic Energy Agency (IAEA) introduced an additional warning symbol to supplement the traditional trefoil. This new symbol features a red background with a black trefoil, radiating waves, a skull and crossbones, and a running figure with an arrow pointing away. It is designed to convey an immediate sense of danger and the imperative to flee, especially in situations where the traditional symbol may not be universally understood.Recognizing the Radiation Hazard Symbol is essential for maintaining safety in environments where ionizing radiation is present. Adhering to recommended safety measures and understanding the significance of this symbol can significantly reduce the risk of harmful exposure.12. Laser Beam WarningThe Laser Beam Warning sign is a safety symbol used to alert individuals to the presence of laser radiation, which can pose serious risks to eyes and skin if proper precautions are not taken.Appearance:The symbol typically features a black sunburst pattern, representing a laser beam, set against a yellow background within a black-bordered triangle, aligning with ISO 7010 standards.Meaning:This warning sign indicates that a laser is in use in the area, and exposure to the beam can cause harm.Potential Hazards:Eye Injuries: Direct or reflected laser beams can cause retinal damage, leading to vision impairment or blindness.Skin Burns: High-powered lasers can cause thermal injuries to the skin.Fire Hazards: Some lasers can ignite flammable materials.Safety Precautions:Personal Protective Equipment (PPE): Wear appropriate laser safety goggles designed for the specific wavelength and power of the laser in use.Access Control: Restrict access to areas where lasers are operated to authorized personnel only.Signage: Clearly display laser warning signs at all entry points to areas with active lasers.Training: Ensure all personnel working with or around lasers are adequately trained in laser safety protocols.Recognizing and adhering to the Laser Beam Warning sign is crucial for maintaining safety in environments where lasers are used. Implementing appropriate safety measures can significantly reduce the risk of laser-related injuries.13. Toxic Hazard (Non-GHS Symbol)The Toxic Hazard symbol is a widely recognized icon used to indicate the presence of substances that can cause significant harm or fatality if ingested, inhaled, or absorbed through the skin. While the Globally Harmonized System (GHS) employs the Skull and Crossbones pictogram to denote acute toxicity, various regions and organizations have historically used different symbols to represent toxic hazards.Appearance:Traditional toxic hazard symbols often feature a skull and crossbones, similar to the GHS acute toxicity symbol. However, the design and color schemes can vary. For instance, some non-GHS symbols may use an orange background with a black skull and crossbones, differing from the GHSs white background with a red diamond border.Meaning:These symbols warn that the substance is highly toxic and can cause severe health effects or death upon exposure.Examples of Substances:Pesticides: Certain insecticides and rodenticides.Industrial Chemicals: Such as hydrogen cyanide or mercury compounds.Laboratory Reagents: Like sodium azide.Potential Hazards:Acute Health Effects: Symptoms can include nausea, vomiting, respiratory distress, convulsions, or fatality, depending on the exposure level and route.Safety Precautions:Personal Protective Equipment (PPE): Utilize appropriate gloves, protective clothing, and eye/face protection when handling toxic substances.Engineering Controls: Ensure proper ventilation or use fume hoods to minimize inhalation risks.Handling and Storage: Follow strict protocols, including secure storage away from incompatible materials and clear labeling of containers.Training: Ensure all personnel are trained in the hazards and emergency procedures related to these substances.Its important to note that with the adoption of the GHS, many regions have standardized their hazard symbols to align with international guidelines. However, non-GHS symbols may still be encountered, especially on older products or in areas where GHS has not been fully implemented.Understanding chemical hazard signs is vital for maintaining workplace safety and preventing accidents. Each sign conveys specific dangers, such as flammability, toxicity, or environmental risks, ensuring workers are aware of potential hazards and can take appropriate precautions. Employers must ensure that all employees are trained to recognize these symbols and follow proper safety protocols. By fostering awareness and adhering to safety standards, workplaces can significantly reduce the risks associated with hazardous chemicals and create a safer environment for everyone.top of pageCLICK FOR PERIOD RELATED CONTENT A pictogram or pictograph is a symbol representing a concept, object, activity, place or event by illustration. Pictography is a form of writing whereby ideas are transmitted through drawing. It is the basis of cuneiform and hieroglyphs. Early written symbols were based on pictograms (pictures which resemble what they signify) and ideograms (pictures which represent ideas). It is commonly believed that pictograms appeared before ideograms. They were used by various ancient cultures all over the world since around 9000 BC and began to develop into logographic writing systems around 5000 BC. Pictograms are still in use as the main medium of written communication in some non-literate cultures in Africa, The Americas, and Oceania, and are often used as simple symbols by most contemporary cultures.An ideogram or ideograph is a graphical symbol that represents an idea, rather than a group of letters arranged according to the phonemes of a spoken language, as is done in alphabetic languages. Examples of ideograms include wayfinding signage, such as in airports and other environments where many people may not be familiar with the language of the place they are in, as well as Arabic numerals and mathematical notation, which are used worldwide regardless of how they are pronounced in different languages. The term "ideogram" is commonly used to describe logographic writing systems such as Egyptian hieroglyphs and Chinese characters. However, symbols in logographic systems generally represent words or morphemes rather than pure ideas. vvv A logogram, or logograph, is a single grapheme which represents a word or a morpheme (a meaningful unit of language). This stands in contrast to other writing systems, such as alphabets, where each symbol (letter) primarily represents a sound or a combination of sounds.A Chinese character is a logogram used in writing Chinese, Japanese and Korean . Its possible precursors appeared as early as 8000 years ago, and a complete writing system in Chinese characters was developed 3500 years ago in China, making it perhaps the oldest surviving writing system. Chinese characters are derived directly from individual pictograms or combinations of pictograms and phonetic signs. The number of Chinese characters contained in the Kangxi dictionary is approximately 47,035, although a large number of these are rarely-used variants accumulated throughout history. In China, literacy for the working citizen is defined as knowledge of 4,000 - 5,000 characters.Just as Roman letters have a characteristic shape (lower-case letters occupying a roundish area, with ascenders or descenders on some letters), Chinese characters occupy a more or less square area. Characters made up of multiple parts squash these parts together in order to maintain a uniform size and shape. Because of this, beginners often practise on squared graph paper, and the Chinese sometimes use the term "Square-Block Characters." The actual shape of many Chinese characters varies in different cultures. Mainland China adopted simplified characters in 1956, but traditional Chinese characters are still used in Taiwan and Hong Kong. Japan has used its own less drastically simplified characters since 1946, while Korea has limited the use of Chinese characters, and Vietnam completely abolished their use in favour of romanized Vietnamese. According to legend, Chinese characters were invented by Cangjie (c. 2650 BC), a bureaucrat under the legendary emperor, Huangdi. The legend tells that Cangjie was hunting on Mount Yangxu (today Shanxi) when he saw a tortoise whose veins caught his curiosity. Inspired by the possibility of a logical relation of those veins, he studied the animals of the world, the landscape of the earth, and the stars in the sky, and invented a symbolic system called zi, Chinese characters.marco-zuppone-zHwWnUDMizo-unsplashcherry-lin-ct58n7B6WbI-unsplashzoo_monkey-TUdM4Rw67W4-unsplashA knowledge of calligraphy is an important step in the understanding of Japanese culture. Calligraphy is not merely an exercise in good handwriting, but rather the foremost art form of the Orient. It is the combination of the skill and imagination of the person who has studied intensely the combinations available using only lines. In the West, calligraphy was intended to suppress individuality and produce a uniform style. Japanese calligraphy (sho in Japanese) attempts to bring words to life, and endow them with character. Styles are highly individualistic, differing from person to person. Japanese calligraphy presents a problem for westerners trying to understand it; the work is completed in a matter of seconds so the uninitiated cannot really appreciate the degree of difficulty involved. However, bear in mind that the characters must be written only once. There is no altering, touching up, or adding to them afterwards. Calligraphy began to filter into Japan during the seventh century A.D. Buddhism from India had travelled via China and Korea and was making many converts in Japan, including the Emperors. Buddhist scriptures were recorded in Chinese writing. This was produced by priests and was aesthetically very pleasing. The most famous Japanese calligrapher was probably the Buddhist monk Kukai. One story records how the Emperor Tokusokutei asked him to rewrite a section of a badly damaged five panelled screen. Kukai is said to have picked up a brush in each hand, gripped one between the toes of each foot, placed another between his teeth, and immediately written five columns of verse simultaneously! Further Reading and Images: //www.chinapage.com/callig1.html#han five thousand years ago, the people dwelling in southern Iraq, the Sumerians, invented one of the world's earliest systems of writing. They did not do so in order to write stories or letters, nor yet to publicize the deeds of gods and kings, though soon enough writing came to be used for those purposes. They invented writing because they needed a means of accounting for the receipt and distribution of resources. For their numbers had grown and their society had become complex in the alluvial plains of the lower Tigris and Euphrates rivers, an environment which required attentive management in order to sustain a large, agriculture-based civilization. Hence the need for organizing labor and resources; hence the need for accounting and accountability. The accounting system the people of ancient Iraq developed comprised both a method of recording language in writing, and a method of authenticating and authorizing records and transactions, through sealing them with personal or official seals.The writing system employed signs to represent numbers, things, words, and the sounds of words. All of the signs were originally pictograms, that is, little schematic pictures of things, actions, or concepts. But they could be used to represent either the things of which they were pictures, or the sounds of the words for those things. For example, a picture of water could be used to mean water, or it could stand for the sound of the word for water, which was A in the Sumerian language spoken in southern Iraq at the time. A picture of a person's head could be used to mean "head" or "person," and it could also stand for the sound of the word for "head," which was "SAG" in Sumerian. Through using signs to represent syllables (like "a" and "sag") as well as to represent things and words for things, all the elements of language could be encoded in writing.Clay was chosen as the standard medium of writing, for it was readily available, malleable, and recyclable, yet durable when dried in the sun or baked. Reeds, which grow abundantly in marshes and along riverbanks, were used to make writing implements called reed styli. For most types of records and documents, clay was formed into rectangular tablets, but for certain purposes cones, balls, prisms, and other shapes were used! To write on clay, one would impress the tip of a reed stylus into the surface and draw it along to make each stroke of a sign. These strokes acquired a "wedge-shaped" appearance, having a triangular head and slender tail, so the modern discoverers of this ancient writing system called it "cuneiform" Latin for "wedge-shaped." Meanwhile, although the signs were originally oriented so that the pictures were right side up, they came to be turned on their sides and written left to right, since that was the easiest way for right-handed scribes to write without smearing their clay.The Sumerian script was adapted for the writing of the Akkadian, Elamite, Hittite (and Luwian), Hurrian (and Urartian) languages, and it inspired the Old Persian and Ugaritic national alphabets. The complexity of the system prompted the development of a number of simplified versions of the script. Old Persian was written in a subset of simplified cuneiform characters known today as Old Persian cuneiform. It formed a semi-alphabetic syllabary, using far fewer wedge strokes than Assyrian used, together with a handful of logograms for frequently occurring words like "god" and "king." The Ugaritic language was written using the Ugaritic alphabet, a standard Semitic style alphabet (an abjad) written using the cuneiform method. The use of Aramaic became widespread under the Assyrian Empire and the Aramaean alphabet gradually replaced cuneiform. The last known cuneiform inscription, an astronomical text, was written in AD 75. Further Reading and Images: is the writing system used by the Ancient Egyptians, that contained a combination of logographic, alphabetic, and ideographic elements. Hieroglyphs emerged from the preliterate artistic traditions of Egypt. Hieroglyphs consist of three kinds of glyphs: phonetic glyphs, including single-consonant characters that functioned like an alphabet; logographs, representing morphemes; and determinatives, or ideograms, which narrowed down the meaning of a logographic or phonetic word. In the era of the Old Kingdom, the Middle Kingdom and the New Kingdom, about 700 hieroglyphs existed. By the Greco-Roman period, they numbered more than 5,000.Engraved hieroglyphs are all more or less figurative: they represent real or imaginary elements, sometimes stylized and simplified, but perfectly recognizable in most cases. In fact, the same character can even, according to context, be interpreted in diverse ways: as a phonogram (phonetic reading), as an ideogram, or as a determinative (semantic reading). TO