Plant parts diagram label

part that lies below the surface of the soil. The top part of a root root apex is covered by a covering known as root cap. They are found above the ground and are structurally divided into nodes and internodes. The regions where leaves are found are known as nodes, whereas the areas in-between the nodes are called internodes. They are mostly found above the ground and attached to the stem. A leaf consists of three main parts: i the petiole, ii leaf base, and iii lamina or leaf blade. Apart from these main functions, leaves of some plants are modified to form tendrils, that help in climbing e. Some leaves may turn fleshy to store food e. They are the most colorful and attractive parts of a plant. A flower contains four main parts:. They are the male reproductive part of a plant producing male sex cells or spermatia. They are the female reproductive part of a plant producing female sex cells or ovules. They are the ripened ovary found in flower after fertilization. The ovules after fertilization make the seed , which is then fertilized to form new plants. Thus although each part of a plant has its specific functions, they all work in combination to provide distinct advantages in plant growth and survival. The colorful part of a flower called petals helps to attract pollinators in a plant. The leaves of a plant are responsible for making its own food for survival. Stamen is the pollen-producing part of a flowering plant. The fruits banana, tomato, etc. Broccoli is the under-developed flower and the stalk of the broccoli plant. Article was last reviewed on Friday, July 3, Your email address will not be published. Save my name, email, and website in this browser for the next time I comment. All rights reserved. Reproduction in whole or in part without permission is prohibited. What are the Different Parts of a Plant Broadly, plants have two organ systems: A the root system and B the shoot system. Parts of a Plant Diagram. Functions Absorbing water and minerals from the soil Storing food for future use Producing plant growth hormones Anchoring the plant firmly to the soil and providing support Developing new plants from the roots of the old plant vegetative reproduction. Functions Making food for the plant with the help of sunlight, carbon dioxide, and water through photosynthesis Helping in reproduction such as in Bryophyllum, a group of sprout leaf plants Helping in evaporation from the aerial parts of the plant by transpiration Apart from these main functions, leaves of some plants are modified to form tendrils, that help in climbing e. A flower contains four main parts: a Sepals: Green parts of a flower found below the petals that protect flower buds from injury. Functions Helping in the sexual reproduction of plants Stimulating pollination in plants and fertilization of the ovule. Functions Protecting the growing seeds Helping in the dispersal of seeds and thus in plant reproduction Thus although each part of a plant has its specific functions, they all work in combination to provide distinct advantages in plant growth and survival. Which part of the plant attracts pollinators? Which part of the plant prepares food for its survival? Which part of a plant produces pollen grains? What are the edible parts of a plant? Which part of the plant is a potato? Potato is the stem of a potato plant. What part of the plant is broccoli? Related articles Prokaryotes vs. Eukaryotic Cell. Prokaryotic Cell. Leave a Reply Cancel reply Your email address will not be published. Related Worksheets. Parts of a Plant Worksheets. About Us Contact Us. Alphabet Activities EnchantedLearning. Printouts For each of the following printouts, first read the definitions, then label the diagram or map. Please let us know if there are any new Label Me! Printouts More on Plants Dicot Seed Label the dicot seed, icluding the embryo, hilum, micropyle, root hypocotyl , seed coat testa , seed leaf cotyledon , and shoot plumule. Answers Flower Anatomy Flowers consist of reproductive parts and modified leaves. Answers A Flowering Plant Label the parts of a flowering plant in English, including the flower, bud, leaf, stem, etc. Answers Fruit Label the orange, lemon, apple, strawberry, watermelon, avocado, banana, pear, cherry, and grapes in English. Printout Read the definitions then label the cross section of the leaf. Answers Leaf External Anatomy Read the definitions then label the leaf. Answers Leaf Margins Read the definitions then label the leaf margins including entire, serrate, crenate, lobed, and parted. Answers Mushroom Anatomy Read the definitions then label the mushroom diagram, including the cap pileus , cup volva , gills lamellae , mycelial threads, ring annulus , scales, and stem stape. Label the simple plant anatomy diagram using the glossary of plant terms. Words: leaf, flower, stem, root. Answers Plant Anatomy Label the flowering plant anatomy diagram using the glossary of plant terms. Answers Plant Cell Label the plant cell diagram using the glossary of plant cell terms. Answers Pumpkin Plant Label the pumpkin vine diagram using the short glossary of terms. Answers Sprouting Bean Plant Label the newly-sprouted dicot plant. Answers Tree Anatomy Printout Label the parts of a tree. Answers Tree in French Label the tree in French. Answers Tree in German Label the tree in German. Answers Tree in Italian Label the tree in Italian. Answers Tree in Spanish Label the tree in Spanish. Answers Tropical Rainforest Strata Label the strata layers of the tropical rainforest. Label the Flowering Plant in English. Label Mushroom Diagram Printout. Label the Flowers in English. Leaf Cross Section Printout. Label the Dicot Seed Worksheet. 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3rd - 5th. Cloze Activities Alphabet Activities. Plant and Fungi Label Me! Dicot Seed Label the dicot seed, icluding the embryo, hilum, micropyle, root hypocotyl , seed coat testa , seed leaf cotyledon , and shoot plumule. Flower Anatomy Flowers consist of reproductive parts and modified leaves. A Flowering Plant Label the parts of a flowering plant in English, including the flower, bud, leaf, stem, etc. Fruit Label the orange, lemon, apple, strawberry, watermelon, avocado, banana, pear, cherry, and grapes in English. Leaf External Anatomy Read the definitions then label the leaf. Leaf Margins Read the definitions then label the leaf margins including entire, serrate, crenate, lobed, and parted. Mushroom Anatomy Read the definitions then label the mushroom diagram, including the cap pileus , cup volva , gills lamellae , mycelial threads, ring annulus , scales, and stem stape. Plant Anatomy Label the flowering plant anatomy diagram using the glossary of plant terms. Plant Cell Label the plant cell diagram using the glossary of plant cell terms. Pumpkin Plant Label the pumpkin vine diagram using the short glossary of terms. Sprouting Bean Plant Label the newly-sprouted dicot plant. Tree Anatomy Printout Label the parts of a tree. Tree in French Label the tree in French. Tree in German Label the tree in German. Tree in Italian Label the tree in Italian. Tree in Spanish Label the tree in Spanish. Tropical Rainforest Strata Label the strata layers of the tropical rainforest. Printouts Math Music Word Wheels. Search the Enchanted Learning website for:. In plant biology, plants are, for the most part, photosynthetic eukaryotes that make up the kingdom Plantae. In addition to synthesizing their own food, plants in different environments aquatic, terrestrial etc play an important role in the production of oxygen making them essential to all life on earth. Although plant biology enables photosynthesis a unifying characteristic , different types of plants have various physical and genetic characteristics. As such, they are divided into distinct groups that include:. A majority of non-vascular plants are small in size and are characterized by poor transport systems. Between and , as many as 2, new species of plants were discovered - Based on various research studies, it was concluded that these plants can be used for food, medicine as well as being sources of timber. For a majority of plants, however, the general anatomy may consist of the following parts depending on the plant:. Each part of the plant's anatomy is involved in given functions. Whereas leaves contain chlorophyll and chloroplasts involved in photosynthesis, the stem provides support for the shoot system while roots anchor the entire plant and take up water and minerals required for growth and development of the plant. Although the parts of plant anatomy mentioned can be found in a majority of plants, some may lack one or several of these parts depending on their ecology. These aspects of the plant may also vary depending on where the plants are found. As water-storing leaves, these leaves may also be more succulent compared to those of aquatic plants. Plant cell biology structure based on their tissue:. For plants, the mode of reproduction is dependent on the type of plant or their environmental conditions. Some plants reproduce through cell division of the parent cell, others require the participation of male and female organs. The modes of reproduction include:. Although it is the primary mode of reproduction for a majority of unicellular plant-like organisms, some multicellular plants also reproduce through this method. There are several types of asexual reproduction in plants that include:. In plants, this method involves grafting of a bud of one plant on to the stem of another plant where it can develop to form a new individual. During fragmentation, fragments of the organism that break off develop to form a new organism. This mode of reproduction is common among multicellular plants that break into several pieces following maturation. Here, spores produced through meiosis are released into the environment where they ultimately start germinating to form a new individual in favorable conditions. Vegetative reproduction is a form of asexual reproduction where a new individual plantlet develops from the vegetative parts of the plant roots stem etc. Here, it is worth noting that some of the plants that use this mode of reproduction are also capable of reproducing sexually. Some of the plants that use this mode of reproduction include:. Here, the axillary bud is joined to the stock for continued growth. As in grafting, budding tends to be successful in cases where the two sections are closely related e. Here, a wounded cut section of the plant is wrapped using moist sphagnum moss. A Black paper or aluminum foil is then used to cover the moss in order to prevent sunscald and conserve moisture. The plant takes several weeks of a few months to produce roots. Here, a small part is obtained from a plant and grown to produce a new plant. This may involve using such parts as a piece of the plant stem or leaf with a bud to grow a new plant when grown in soil. This technique has been used to successfully grow such plants as grapes and bougainvillea. Essentially, sexual reproduction is a form of reproduction that involves the formation of a zygote following fusion of male and female reproductive cells known as gametes. In flowering plants, flowers serve as reproductive units of the plant. Flowers consist of the following parts:. In plants, sexual reproduction starts following pollination. During pollination, male gametes in pollen from the same flower or a different flower same species are transported to the stigma which is the female part of the flower. Here, wind, insects, birds and

even water drops may play a role in the transfer of pollen and are therefore referred to as transport agents. In the case of insects and birds, they are attracted to the flower by bright colors or a sweet scent. On the other hand, in cross-pollination, pollen of a plant pollinates the flower of another plant of the same species. Following pollination, the pollen grain grows a thin tube that runs down the style towards the ovary. At the same time, the cell located in the pollen grain undergoes division to produce two male cells gametes that travel through the pollen tube to reach the female gamete in the ovule of the ovary. Fertilization occurs when one of the male gametes fuses with the female gamete in the ovule thus uniting the haploid chromosomes of the two. The result is a fertilized egg zygote that contains a complete pair of chromosomes diploid. The other male gamete fuses with the secondary nucleus to form a triploid endosperm nucleus. This, in turn, develops into an endosperm which is the source of food for the embryo. Photosynthesis is the process through which plants use various inorganic material to synthesize food. Some of the parts that contribute to photosynthesis include:. Leaves also have pores stomata on their surface through which carbon-dioxide is absorbed from the atmosphere. The water is then transported through the vascular system to the site of photosynthesis. Because of differences in environmental and climatic conditions, plants in different ecologies have adapted to different types of photosynthesis that include:. C3 photosynthesis. Plants that use this form of photosynthesis are known as C3 plants about 83 percent of all plants. During the first phase of photosynthesis, carbon dioxide reacts with RuBP ribulose 1, 5-biphosphate two molecules of 3-phosphoglyceric acid which goes through the Calvin cycle to produce sugars and energy. C4 photosynthesis. In C4 plants, light-dependent reactions take place in the mesophyll cells while the Calvin cycle takes place in special cells known as bundle-sheath cells. In the first stage in mesophyll cells carbon dioxide is fixed by phosphoenol pyruvate to produce malate 4-carbon. Malate is then transported to the bundle-sheath cells where it is broken down into carbon dioxide and a 3-carbon compound. This, in addition to the absence of oxygen means that the process does not suffer the effects of photorespiration. About 10 percent of plants use CAM photosynthesis. These plants are usually found in very hot and dry environments and include pineapple, orchids, and cacti among others. For instance, at night, plants open their stomata which allow carbon dioxide to be absorbed into the leaves. The gas is then fixed by PEP carboxylase to produce oxaloacetate which is in turn converted to malate and stored in the vacuoles. During the day, stomata remain closed. Although no carbon dioxide is taken in from the atmosphere, organic acids e. Following a number of improvements, scientists were able to identify individual cells which led to the conclusion that all things are composed of cells cell theory. In plant biology, microscopy made it possible to identify the different types of cells and thus the role they play in plant development. In addition, microscopy made it possible to exclude some organisms e. As such, it made it possible to determine characteristics of organisms that fit in the kingdom while excluding those that failed to meet these characteristics. So presently a few other kingdoms are described according to their specific characteristics. Some of the other contributions of microscopy to plant biology include:. More plant biology related articles:. Leaf Structure under the Microscope. Page on Plastids. Learn more about Chloroplasts. Mesophyll Cells. Meristem Cells. Transgenic Plants. What are Epiphytes? Return from Plant Biology main page to MicroscopeMaster home. Kingsley R. Stern, James E. Bidlack, and Shelley H. Introduction to Plant Biology. Edition Eleven. Leakey R. Physiology of vegetative reproduction. Yuan L and Sundaresan V. Spore formation in plants: sporocyteless and more. Amazon and the Amazon logo are trademarks of Amazon. Scientific understanding changes over time. MicroscopeMaster is not

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