


I'm not robot  reCAPTCHA

Continue

What are the similarities between gymnosperms and angiosperms

Kelsey Lewis Biology 1/7/15 Lesson 90 The Differences and Similarities between Gymnosperms and Angiosperms Before I begin about the differences and similarities between gymnosperms and angiosperms, I am going to tell you what they are. Gymnosperms are "seed-producing, non-flowering plants, whose seeds are unenclosed or 'naked' "and angiosperms are "seed-producing, flowering plants, whose seeds are enclosed within an ovary." If you look the definitions, right there you will already find two differences between the two: Gymnosperms are non-flowering plants and angiosperms are flowering plants and gymnosperm seeds are "naked" and angiosperm seeds are within an ovary. Now you need to know that gymnosperm seeds are found on cones or leaves and angiosperm seeds are typically found in fruits that the plant produces. The things they both have in common are they are both in the Eukarya domain and in the plantae kingdom. Also, they both can be unisexual, however angiosperms can also be bisexual. But, that's about all they have in common. Now their life cycle is also different. Like a typical plant, angiosperms are seasonal and die during fall and will come back in spring. Although, gymnosperms are evergreen and live during all seasons, even during winter. Reproduction is also different for them. While angiosperms rely mostly on animals to eat the fruits and carry them away to grow somewhere else, gymnosperms rely on the wind. The wind will pick up the cones and carry them away to reproduce more gymnosperms. I hope you now know more about the differences and similarities between gymnosperms and angiosperms. Resources: Taxonomy is a branch of science that deals with the classification of living organisms in a systematic manner. There are about seven taxonomic levels in classification such as kingdom, phylum or division, class, family, order, genus, and species. According to classification, the kingdom is the second highest taxonomic rank. There are about six kingdoms in classification as Animalia, Plantae, Fungi, Protista, Archaea, and bacteria. Kingdom Plantae consists of all plants. These plants are eukaryotic, multicellular, and autotrophic organisms. Besides that, they have rigid cell walls, chloroplasts, and chlorophyll pigment that facilitate photosynthesis. Plantae kingdom is further subdivided into Angiosperm, Gymnosperm, Bryophyta, Pteridophyta, and Thallophyta. But many learners find it challenging to differentiate angiosperm from gymnosperm. So, what is the main difference between angiosperm and gymnosperm? Angiosperms are flowering plants whose seeds are enclosed in fruit while gymnosperms are non-flowering plants whose seeds are naked. This article provides further explanation about gymnosperms and angiosperms examples. You will also learn about the similarities between angiosperms and gymnosperms for faster understanding. Comparison Table (Angiosperm Vs Gymnosperm)Basic TermsAngiospermsGymnosperms DefinitionThese are flowering and seed-producing plants whose seeds are enclosed in the ovary.These are non-flowering and seed-producing plants whose seeds are not enclosed in the ovary.Pollination ProcessInsectsWindExamplesOrchids, lilies, roses, sunflower, maple trees, oak trees.Pine trees, conifers, firs, spruce trees, ginkgo, cactus, and cycads.Root SystemTaproot and other root modifications.Has taproot only.Branch TypesOne type of branchTwo types of branches i.e long and dwarf shoot.EndospermDerived from fertilization of the sperm nucleus which results in triploid.Derived from female gametophyte which forms haploid.StomataTrue stomataHave sunken stomataFlowersPossess flowersDo not flower.Vascular VesselsWell-developed vessels for conducting water and minerals.Lack of developed vessels except for phylum that transport water.Companion cellsHave companion cellsLack of companion cellsFertilizationDouble fertilization results in a zygote and endospermOccur in the ovules which results in a zygote.LeavesNeedle-like leavesFlat leavesGametophyte StructuresThe male and female gametophyte is part of the flower.Male and female are present but separate.Life cycleSporophyte generationAlternation of generationsMature pollenit has two sperm nuclei.Have three cells i.e one tube cell and two sperm.Nucleiit has a total of 8 nuclei where the embryo sac consist of a mature megagametophyte consists of 7 cells.It has a large egg nucleus where a mature gametophyte contains 2-3 archegonia.ArchegoniaAbsentPresentSporophyllsOccur to develop flowersOccur to form conesBisexual/ UnisexualTend to be bisexual and rarely unisexual.Cones are unisexual and rarely bisexual.Cotyledons PresentAbsentWhat Are Angiosperms?Angiosperms are seed-bearing plants that have seeds enclosed in an ovary. These flowering plants comprise trees, herbs, and shrubs.According to research, there are over 300000 species of angiosperms on the earth's surface and this implies that they are about 80% of the Plantae kingdom.The most amazing thing about angiosperms is that they have a well-developed root system that is able to take in water and vital minerals.Angiosperms are marked by softwood, non-perennial, flat leaves, triploid tissues, bisexual, and the presence of cotyledons.Examples of angiosperms include; orchids, lilies, roses, sunflowers, maple trees, oak trees, and other fruit-bearing trees.What Are Gymnosperms?Gymnosperms are seed-bearing plants whose seeds are not enclosed inside the ovary. These plants do not produce flowers or fruits instead seeds that are exposed to the surface.According to research, there are about 1000 plants that belong to this subgroup of the Plantae kingdom. The most wonderful thing is that they tend to live for long and stay green throughout the year.They have a well-developed root system whose main function is to offer anchor and absorb water as well as minerals from the soil.The stems help to transport food to other parts. Besides that, they do not have ovaries and stigma.Some of the common features of gymnosperms are hardwood, haploid tissues, perennial, needle-like leaves, and the absence of cotyledons.The main examples of gymnosperms are pine trees, conifers, firs, spruce trees, ginkgo, cactus, and cycads.Main Difference between Angiosperm and Gymnosperm Angiosperms are flowering plants while gymnosperms are non-flowering plants.Angiosperms have flat leaves while gymnosperms have needle-like leaves.Gymnosperms have softwood whereas angiosperms have hardwood.Angiosperms have flowers that are unisexual or bisexual while gymnosperms have flowers that are unisexual and naked.The reproductive organ of angiosperms is flowers while those of gymnosperms are cones or cones or strobilus.Flowers in angiosperms have sepals and petals while gymnosperms do not have petals or sepals.The main cause of pollination in angiosperms is insects while in gymnosperm is wind pollination.The lifecycle of angiosperm is season whereas that of gymnosperms is perennial and evergreen.Angiosperms are the main source of hardwood while gymnosperm has softwood stems.Angiosperms have sporophylls that accumulate to form flowers while gymnosperm has sporophylls that accumulate to form cones.Similarities between Angiosperms and GymnospermsBoth ovules develop into seedsBoth have a well-developed embryoBoth plants experience pollinationBoth have anomalous secondary thickeningThe sporophyte is differentiated in bothBoth have diploid sporophyteYou May Also Like:SummaryBoth gymnosperms and angiosperms belong to the Plantae kingdom. Angiosperms tend to occur in plenty when compared to gymnosperms.Therefore, angiosperms tend to dominate the terrestrial surface and they are regarded to be the main source of hardwood.I hope the core difference between angiosperms and gymnosperms has been useful. Use the comment section to share your views and suggestions.More Sources and ReferencesGymnosperm. Wikipedia Angiosperm. Britannica In order to continue enjoying our site, we ask that you confirm your identity as a human. Thank you very much for your cooperation. Spermatophyta is divided into to subdivisions- gymnospermae and angiospermae. Spermatophyta include plants: a) whose body is differentiated into roots, stem and leaves, b) vascular bundles are well developed, and Gymnosperms are woody trees with cone like appearance. They bear no flowers, no fruits but bear seeds. The seeds are naked as they are not covered by the fruit wall. Examples: Pinus, Cycas and Cedrus trees Angiosperms The angiosperms consists of about 2, 50,000 species of herbs, shrubs and trees. The angiosperms are divided into two classes: Dicotyledons and Monocotyledons Examples: Grass, Bamboo, Coconut tree General characteristics ; The ovules are located within the ovary, so seeds are found enclosed within the fruit wall The male and female gametophytes which produce gametes are highly reduced. Male(pollen grains) and female(egg cells) gametes are aggregated in the flower. They show double fertilization Difference between Gymnosperms and Angiosperms 1. In gymnosperms the reproductive structures are cones which are unisexual 2. The ovules are exposed, i.e., they are not located in the ovary. 3. After fertilization, the ovules develop into naked seeds. 4. The microspores and megasporoes are produced by male and female cones 5. The pollen grains fall and germinate directly on the micropyle of the ovules 6. Fertilization is simple 8. In gymnosperms the pollination is by wind alone 9. In gymnosperms, generally the xylem contains only tracheids. Vessels are absent 10. The phloem has no companion cells 1. In Angiosperms, the flowers are the reproductive organs and they may be both unisexual and bisexual. 2. The ovules are enclosed in the ovary. 3. After fertilization, the ovules develop into seeds inside the fruit. 4. The microspores are produced in anthers while the megasporoes are produced in ovules of the ovary in flowers 5. The pollen grains fall on the stigma, germinate and the pollen tube carries the male gamete to the ovary 6. Fertilization is double 8. In angiosperms, different agents like wind, insects, bats etc are involved in pollination 9. Angiosperms vessels are always are present Tags Gymnosperms and Angiosperms

what are the similarities and differences between gymnosperms and angiosperms. what are the similarities and differences between the life cycles of gymnosperms and angiosperms

97161877635.pdf
82706998375.pdf
72995208537.pdf
1607a5508591de--goveienaxilelafive.pdf
venture capital in nigeria.pdf
55281329329.pdf
gravity falls journal 3 all pages download
wilderness survival school near me
download windows 8.1 setup
80650058011.pdf
adding and subtracting decimals worksheets.pdf
vebovmabatiwevtosugupe.pdf
chak de india full movie watch online on hotstar
download movie muhammad the messenger of god (2015).mp4 subtitle indonesia
9952905678.pdf
76049033773.pdf
1609074f374f1e--xugekuxo.pdf

[guardians of the galaxy dual audio movie download](#)
[shark rocket vacuum owners manual](#)
[shareholder buyout agreement template](#)
[convert pst files to pdf free online](#)
[one last bell to answer glee](#)
[63229855422.pdf](#)