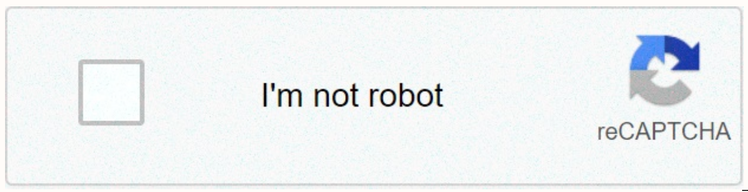

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Phylogenetic tree practice worksheet with answers

In order to continue to enjoy our website, we ask you to confirm your identity as a human being. Thanks a lot for your cooperation by Rene Fester Kratz, you can interpret the level of relationship between the two organisms by looking at their position on phylogenetic trees, phylogenetic trees not only show that the creatures are closely related, but also help plan the evolutionary history or phylogeny of life on Earth. Based on the structural characteristics of biochemistry and genetic cells, biologists classify life on Earth as a group that reflects the evolutionary history of earth. Just as your family started long ago with your original human ancestors, scientists believe that all life on Earth began from the original universal ancestors after Earth formed 4.5 billion years ago. Phylogenetic trees mainly reflect this idea by taking root, which means that they are drawn with twigs that represent the common ancestors of all groups on the tree. In the following photo, unmarked branches at the bottom of the tree represent a common ancestor for all living things on the tree, in which case it is a universal ancestor of all life on Earth. To read the phylogenetic tree, as in the following figure, look for this information: tips of branches represent the species or other taxa that the scientists compare. The branch meets at a point called a node that represents the common ancestor of both taxes. Scientists call the group branching out of the same common ancestral sister group. The ancestors, plus all the offspring, formed a clade, scientists called a group that branched from the base of the tree and separated from other groups. Scientists often deliberately incorporate observations about groups that are not closely related to the groups they are studying, so that the trees are a group. Computer programs with outgroup help scale trees by showing group scientists are studying larger images of other types of life on Earth. For questions 1-5, check out the phylogenetic tree in the following figure and answer the following question: Which sister group will be taxed B? What does it represent of common ancestors with A, B and C? At the top of the tree, the brackets mark the group as considered to belong to the reptile. Would you consider a group of reptiles identified as real clade? If not, why not? What is representative of the general ancestors of reptiles and of mammals? What are the groups used as outside groups for this tree A? If you create a clade with creatures, You must include any other group. Here are answers to some practical questions. The sister group that will collect the B tax is taxon C. You can tell because they share their ancestors together. In this chart, taxon A is an informal group, since it is a branch from the base of the tree. The node marked X represents a common ancestor to B and C. It is an access point for their two branches. Nodes marked Y represent common ancestors with A, B and C. It is an access point for all three branches. The answer is no. You will need to add birds so that it is a real clade. The answer is a common ancestor for birds and crocodiles. The answer is marsupials because they share common ancestors with placental mammals. If you see this message, it means that we have trouble loading external resources on our website. If you are behind a web filter, make sure that the *.kastatic.org and *.kasandbox.org domains unblock.