

GEOLOGY 1120: EVOLUTION OF THE EARTH**Assignment 3****Due Date: Wednesday, April 17, 2019, 11:59 PM*******Submit this assignment as a Microsoft Word document (not PDF)
on Canvas**********No late submissions will be accepted*****

Topics: Choose only one topic to answer following the instructions below closely. (50 points)

(1) Suppose you were to encounter a young, well-trained geologist who was unfairly imprisoned in 1950 and was deprived of reading scholarly articles until he was released last week. He entered prison firmly opposed to the idea that continents have moved large distances across the Earth's surface. Given an hour of time, how would you convince this unfortunate geologist that continents have actually moved thousands of kilometers? Use the visual overview on pages 204-205 of the textbook (Stanley and Luczaj, 2015) as a guide to develop your argument.

(2) Discuss the processes responsible for the formation of fossils, and explain why some fossils are exceptionally preserved.

(3) What forces are responsible for the different types of volcanoes? Discuss the processes involved and how they account for differences in their destructive power.

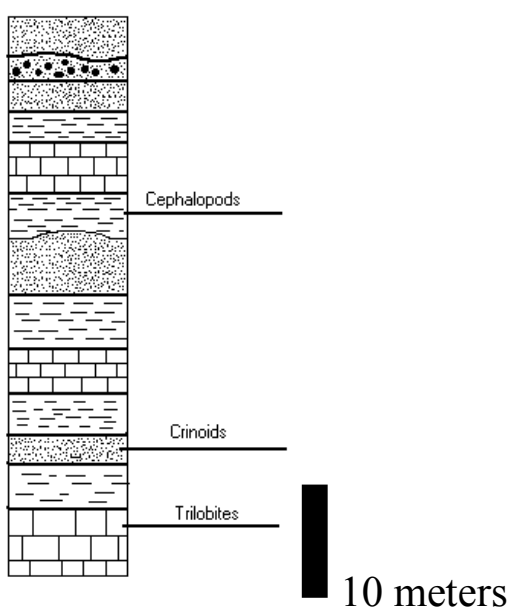
(4) Discuss either the Meandering Fluvial or Delta depositional environment in detail.

(5) Choose one piece of rock or a fossil (the name of which should be known) and write a comprehensive account about it (e.g., origin, composition, etc.).

(6) The extinctions of dinosaurs: Facts. Myths and controversies.

(7) The lithostratigraphic section below shows various layers of sandstone, shale, limestone and conglomerate, some of which

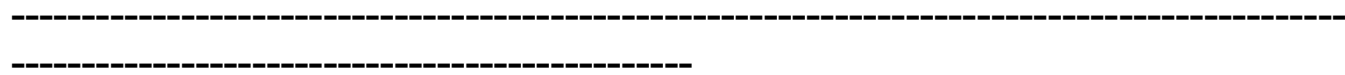
contain fossils. Reconstruct their possible environments of deposition, the reasons for differences in layers, any abnormalities and the importance of the fossils in specific layers.



(8) What are the consequences of the Cretaceous mass extinctions?

(9) Discuss the notable global geological events that occurred during the Paleogene.

(10) What is global warming? Discuss the causes and consequences of global warming.



*** Missouri S&T takes plagiarism seriously. Essays compiled directly from the internet even if the sources are cited will not be graded. Credit all sources cited and use your own sentences to write this assignment. I will deduct points if too many quotations are used in the assignment***

Instructions:

Each student is responsible for structuring and deciding how to discuss this assignment. **Consult more than one textbook or scholarly article and use internet sources only as a guide.** Do not cite internet references except if used for figures, photographs or illustrations included in the assignment. **You will lose a lot of points if you only use or cite internet references such as Wikipedia within your essay** (more

on this below). **Cite at least three references** for your work. Do not hesitate to discuss any questions you may have with this assignment with me at least five days before the due date. I prefer face-to-face meeting. The course syllabus illustrates (p. vii) illustrates the criteria I will be evaluating. The following instructions will ensure that each essay is well organized and structured.

(1) Using several literature sources (e.g., Prothero and Schwab, 2014; Boggs, 2012; *in addition* to the course textbook [Stanley and Luczaj, 2015]), discuss your chosen topic, keeping in mind the criteria that will be used to grade this assignment (see page vii of syllabus in the class notes). **Each essay must be titled and paginated (i.e., have page numbers inserted). The page limit is 3 pages and it should include references cited and figures. It should be single-spaced. I will deduct points if the essay is longer than 3 pages, is not single-spaced, or has no page numbers. References should not be moved to a separate page. Be sure to include your name on the first page, or you will lose one point for not including your name in the paper. No cover page is needed.**

(2) It is important that the essay should have a section subtitled "**Introduction**," which will indicate the scope of the write-up and aspects of the major points to be discussed.

(3) The main part of the essay **must** have several sections with subtitles (e.g., Criteria used for reef classification, Examples of Volcanoes, etc.).

(4) There should be a section subtitled "**Conclusions**," and this section should reinstate the main issues that were addressed in the main body of the essay.

(5) References used must be cited, both within the essay and under a section entitled "**References**." This section must come after "Conclusions." Do not regurgitate what is in the textbook or any other references used. It is essential that every student learn how to synthesize statements/points and then use their own words in the write-up. There are several other references in the library that discuss the main issues covered in this assignment. Do not lift sentences directly from

references. Also, do not use the full citations of internet references when cited in the text; these come at the end in the Reference section. **When citing a reference, always state the year of publication after the author's last name (e.g., Stanley and Luczaj, 2015) and not just the page number (Stanley, 109).** If you decide to note the page number, then the year of publication must preface it (Stanley and Luczaj, 2015, p. 109). In this reference section, only include the full citations of references cited in the essay. If you used a reference but did not cite it, do not include it here. Otherwise, I will deduct some points from your work.

Note that I do not accept internet references (including Wikipedia) except for figures or illustrations. Cite books or journal articles as sources in your essay. Any internet references used as sources of figures must be cited in the reference section only and *not* in the caption for the figures. They should be referred to as Internet Reference 1, Internet Reference 2, etc. in the caption and noted as such in the reference section.

The styles for the full citations of references are as follow:

For journal articles cited, see examples below:

Oboh, F.E., 1992, Middle Miocene palaeoenvironments of the Niger Delta: Palaeogeography, Palaeoclimatology, Palaeoecology, v. 92, p. 55-84. **(Single author; cite within the essay as Oboh, 1992)**

Oboh-Ikuenobe, F.E., and De Villiers, S.E., 2003, Dispersed organic matter in samples from the western continental shelf of Southern Africa: palynofacies assemblages and depositional environments of Late Cretaceous and younger sediments: Palaeogeography, Palaeoclimatology, Palaeoecology, v. 201, p. 67-88. **(Two authors: cite within the essay as Oboh-Ikuenobe and de Villiers, 2003)**

Scott, R.W., Holbrook, J.M., Oboh-Ikuenobe, F.E., Evetts, M.J., Benson, D.G., and Kues, B.S., 2004, Middle Cretaceous stratigraphy, Southern Margin, Western Interior Basin: Mountain Geologist, v. 41, p. 33-61. **(Multiple authors: cite within the essay as Scott et al., 2004)**

For a book reference cited:

Prothero, D.R., and Schwab, F., 2014, Sedimentary Geology: An Introduction to Sedimentology and Stratigraphy, Third Edition: W. H.

Freeman and Company, New York, 593 p. (**Cite the total number of pages and not just the pages used for discussion**)

Internet references cited for figures or illustrations only: (hypothetical examples)

Internet Reference 1: <http://www.xxx.com/~Cretaceous.htm>

Internet Reference 2: <http://www.gsu.edu/~deltas>

(6) No two essays should be the same. I will not grade such essays, resulting in a zero grade.

(7) Bring a draft of your essay to class on Friday, April 12 for peer evaluation. Failure to participate in this peer-review exercise (i.e., no draft or absence from class) will result in a 15-point deduction.