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**89.582 - GEOLOGICAL OCEANOGRAPHY
HOMEWORK V - PALEOCEANOGRAPHY**

1. What is *paleoceanography*?
2. In making a paleoceanographic reconstruction, what basic information must be obtained for each sample site?
3. Distinguish between *time series* and *time slices*.
4. Describe how phytoplankton can be used to determine surface water current patterns.

5. Describe how benthonic organisms can be used to determine vertical circulation patterns.

6. How can oxygen isotopes be used to determine temperature variations in the ocean?

7. What is a *gateway*?

8. How could one use deep sea sediments to determine a zone of upwelling?

9. Why might *bioturbation* be a problem when one is trying to extract climate change and other types of data from the seafloor sediment record?

10. What factors affect the input of clastic sediments into the ocean?

11. List and briefly describe four factors that complicate the interpretation of oxygen isotope temperature determinations.

12. How can one use micropaleontological data to infer the temperature of surface waters?

13. List and briefly describe the factors that control climatic variations.

14. What is *event correlation*?