

- Consider this ap
- <https://climate-change-graphs.herokuapp.com>
- Select the explore tab
- Use the draw tool and sketch lines that demonstrate 3 trends in temperature anomalies

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- Four possible trends....
- Consider the most recent trend starting around 1965
- What has been the yearly increase in temperature anomaly from then till 2005?

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i>clicker:
What has been the yearly increase in temperature anomaly from then till 2005?

a) 0.938° C
 b) 0.045° C
 c) 0.983° C
 d) 0.02125° C
 e) 0.25° C

$\text{> } 0.08^\circ \text{ anomaly (1965) - 0.93 anomaly (0.93)}$
 $\text{> } 0.85^\circ \text{ in 40 years}$
 $\text{> } 0.85 / 40 = 0.02125^\circ \text{ per year}$

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i>clicker:
The End Permian temperature increase has been estimated at 10° C. At the rate of increase we have identified, approximately in what year will we reach 10° C?

a) 2185
 b) 2250
 c) 2450
 d) 3085
 e) 3500

$\text{> } 0.93 \text{ anomaly (2005) - } 10^\circ = 9.07^\circ$
 $\text{> } 0.02125^\circ \text{ anomaly inc. / } 9.07^\circ \text{ (to get to } 10^\circ \text{) = 426yrs}$
 $\text{> } 2021 \text{ (current year) + 426 years = year 2447}$

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Discussion

In groups, consider the following questions;

1) What issues may you have with the estimate we have calculated for 10° C temperature increase?

2) If we do see temperatures increasing to a 10° anomaly by 2447, should we expect a Permian level of extinction? What is different?

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