

Reading/ Writing for Monday (23rd)

Read packets of letters by Darwin(Darwin Letters on BB in the readings folder)

Writing for Monday (23rd)

C-14 isotope dating

K-Argon dating

Be able to draw "Curve" for carbon dating

Sources of Error? You knowwww.

### Concept of Error Bars

Measurement error universal

Error Bars quantified by replication

Mean as best estimate of "true" value

Margin of error telling you where the "true" value is likely to fall

Standard deviation. Demand error bars on every statistic

Validity of Method?

Starting assumptions of C-14 Dating

C-14 @ 1ppt upon death

Half life is constant under varying conditions?

Change in C-14 after death solely the result of radioisotope decay

Calibration of carbon date. Adjust date with reference of actual value of C-14 concentration

Is C-14 level in atmosphere constant over space/time?

What governs C-14 levels over space & time?

Is variation in C-14 subject to estimation?

Calibrated vs uncalibrated age estimates?

Assumption #2

Isotope decay rates constant

Libby's empirical approach to this question

"Curve of Knowns"

Radioisotope decay rates?

1st principle of physics

Experimentation(heat, pressure, gravity)

Factuality as defined by S.J Gould

Kennewick Man

Downstream from Hanford Nuclear facility and risk of C-14 contamination

Skeleton exposed to weathering & water seepage.. possible loss of C-14

Spearhead technology dates from 7200 to 12,500 yrs

Principle of indecent Confirmation

Coming at the question from a different methodology. Aka determining age from different sources