# Predict with a linear model while distinguishing interpolation from extrapolation.

## Key skills | Free preview

Learning target: Predict with a linear model while distinguishing interpolation from extrapolation.

A fitted gradient describes the predicted change in the response for a one-unit change in the explanatory variable. The intercept is the prediction when the explanatory variable is zero, which may lie outside the observed range. Predictions within the range interpolate; extending the rule beyond it adds an assumption that the same relationship continues.

## Try the mathematics

Task 1. For trees aged 4–12 years, a by-eye model is height=2+0.7×age, in metres. Interpret its gradient and intercept and predict height at age 8.

## Continue with the full worksheet

The complete resource has 2 focused task sets and substantive worked solutions. Use an exercise book or print the A4 worksheet. This preview shows the first task without its full solution.

Find this resource: https://resources.aspiretopowerlearning.com.au/vce/skills/aspire-internal-gm-u2-o1-aos1-ks-04/

## Study-design reference

VCE Mathematics Study Design 2023-2027, version 1.1 (November 2022). General Mathematics; Unit 2; Outcome 1; Key skills; Investigating relationships between two numerical variables; bullet 4; p. 38.

The learning target is a concise paraphrase. Aspire reference: aspire-internal-gm-u2-o1-aos1-ks-04. This is an internal identifier, not an official VCAA code.

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