Materials Selection using Ashby Charts

Note Handout

Lesson 1: Visualizing Material Properties

Why might material data be difficult to deal with when in a data of numbers?

What scale is used for the axis on material property charts? Why?

Why aren't materials plotted as dots in our bubble charts?

Lesson 2: Visual Materials Selection

What is ranking and how is it used for materials selection?

How does ranking work with a bar chart? How does ranking work with a bubble chart?

What is screening and how is it used for materials selection?

Which process comes first- Ranking or Screening? Why?

Lesson 3: Case Study- Applying Visual Materials Selection

Fill out the table below with the design criteria for the airplane wing spar. We are interested in:
- The criteria
- Whether we screen or rank against this criteria
- What material property we used to represent this criteria in our selection process

Criteria	Screening or Ranking?	Material Property

When do you know you are done with the screening and ranking processes?