

Blade Design Analysis and Testing Lesson Plan

45 MIN CLASS PERIOD

1. Intro to wind energy
2. Show 4 designs – rank them silently (see ranking sheets), use 2 models/fans
3. Assign a design to each team – analyze design, make hypotheses about why it will perform like they think, test their designs – 3 tests and then average, discuss what they could do to make it better (see worksheet)
4. Teams report back results – discuss why or why not perform as expected

EXTENSION: If have more time allow students to redesign their blades to make them better