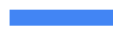




STEM STUDENT PACKET



NAME: _____

SECTION: _____

STEM #3 CHALLENGE: Windmills



Inspired by engineers who design windmills to generate clean energy in different environments, your team will act as wind engineers. Your challenge is to design and build a windmill that can capture wind energy and convert it into motion..

Your windmill should be strong, stable, and able to spin efficiently when exposed to wind from a fan or natural breeze. You will need to consider blade shape, size, and materials to maximize performance.

YOUR TEAM'S MISSION

Design and build a windmill that can spin efficiently and lift 3 washers within 30 seconds by harnessing wind energy from a fan working on full speed for 30 seconds.

Group # _____
Team Member Names

STEM #3 CHALLENGE:

Windmills



Research the internet and books on Epic to gather information on windmill designs and answer the following questions.

1. Find **2–3 photos of different windmill blade designs**.

2. Describe at least **two important features of windmill blades** (such as shape, size, or angle), and explain **how these features help the windmill spin better or faster**.

STEM #3 CHALLENGE:

Windmills



Planning - Use your research to decide on the materials and the design of your windmill blades.

Create a labeled diagram of your WINDMILL BLADES.

CHOSEN Materials

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