

Everyone Engineers!!
Engineering is Elementary
Real-world Design Challenges for Talented Students
Practical, Rigorous, Flexible

AGENDA

A Case for Elementary Engineering

What is Engineering is Elementary?

Challenge: Designing Sails

How EiE benefits the Gifted/Talented Population





Assessment in Engineering is Elementary

Student and Teacher surveys of EiE

Name: _____ Date: _____





Be a Mechanical Engineer!

1. Circle the **material** you predict will work best to design a sail.

| | | | | |
|--|--|---|---|-------|
| aluminum foil  | paper  | plastic wrap  | wax paper  | other |
|--|--|---|---|-------|


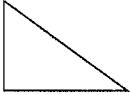

Why? _____

2. Circle the **material** you predict will NOT work best.

| | | | | |
|---|---|--|--|-------|
| aluminum foil  | paper  | plastic wrap  | wax paper  | other |
|---|---|--|--|-------|

Why not? _____

3. Circle the **shape** you predict will work best for a sail.

| | | | |
|---|---|--|-------|
| square  | triangle  | circle  | other |
|---|---|--|-------|

Why? _____

Name: _____ Date: _____

Testing Sail Designs

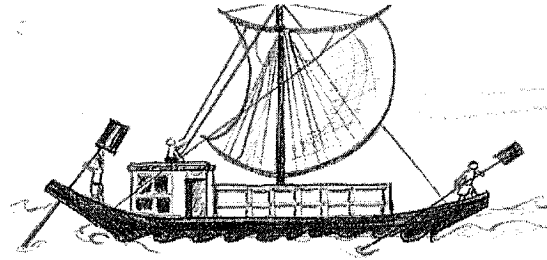


Illustration by J. Martin

Pick your best sail design. Describe what happened.

1. How far did your sail go? Draw it.



end

2. How floppy was your sail? Circle the best choice.

very floppy

a little floppy

not at all

Draw a picture of your best sail design.