

BUILD A BOAT!

Engineering Challenge Worksheet

Name:

Team:

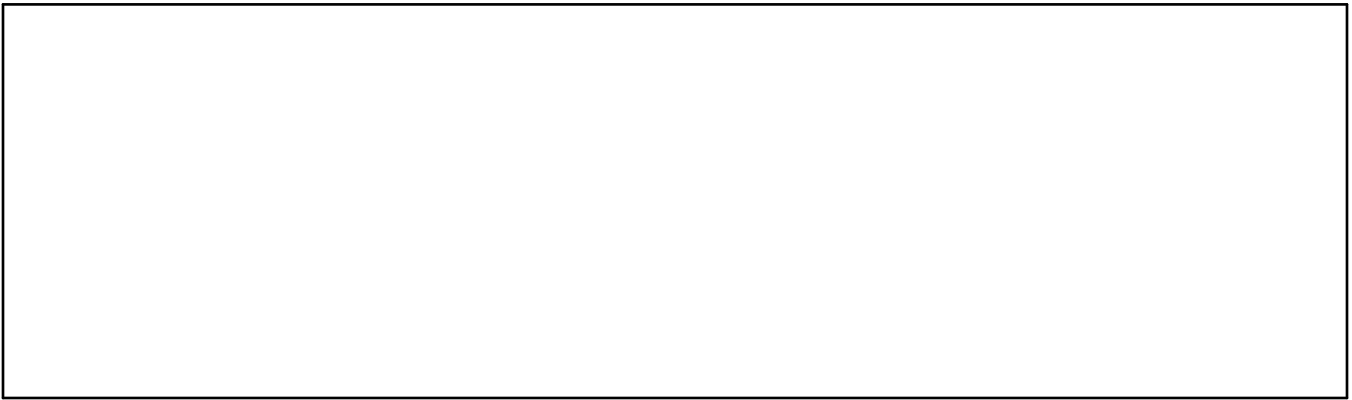
Your mission: Design and build a boat that floats and carries cargo. Engineers test ideas, learn from what happens, and improve their designs.

1. THINK LIKE AN ENGINEER

What do you think will help a boat float and stay upright?

2. DRAW YOUR FIRST DESIGN

Sketch your boat. Label at least one part of your design.



3. BUILD & TEST

Test	What did you change?	Cargo carried
First design		
Improved design		

4. WHAT HAPPENED?

What worked well? What did not work the way you expected?

5. IMPROVE YOUR DESIGN

What is ONE change you would make next? Why?

BUILD A BOAT — REFLECTION

6. ENGINEERING THINKING

My boat was successful because...

The most surprising thing I observed was...

When I changed _____, the boat _____.

A good engineer needs to be willing to...

7. CHALLENGE YOURSELF

If you had the same materials but had to carry twice as much cargo, what would you change?

8. SHOW WHAT YOU LEARNED

Circle or complete one:

I learned that boats can float when... _____

I learned that testing is useful because... _____

My best design idea was... _____

ENGINEER'S NOTE

There is not always one “right” design. A test gives you information. Use that information to make your next design better.