

Building a Ship to Withstand Great Lakes Weather
Regional Science Consortium
NOAA B-WET MWEE

Team Name: _____

Boat Function (what will it be used for)? _____

As you boat travels across the Great Lakes, what weather does it need to withstand? _____

Does the boat need to travel quickly or be steady? _____

Will the boat be carrying Cargo? What is the Cargo? How much? How heavy is the Cargo (use % of total boat weight)? Where on the boat will the Cargo be stored? _____

What Material(s) will be used to build the boat? What will hold the materials together? _____

Create a Sketch of your Boat on graph paper (include length, width, depth, and total height).

After the boat is built,

What is the boat's weight? _____

Estimated the boat's volume: _____

Wave Tank Boat Test

Low Wave = _____ strokes/10 seconds = _____ strokes/second

High Wave = _____ strokes/10 seconds = _____ strokes/second

<u>Test</u>	<u>Yes</u>	<u>No</u>	<u>Comment</u>
Does the boat float upright with no waves when anchored?			
Does the boat float upright with low waves when anchored?			
Does the boat float upright with high waves when anchored?			
Does the boat float upright with no waves when towed?			
Does the boat float upright with low waves when towed?			
Does the boat float upright with high waves when towed?			

Ballast Weight = _____

What did your boat do best? _____

What did your boat not do well? _____

Suggested boat building improvements? _____
