ENGINEERING NOTEBOOK

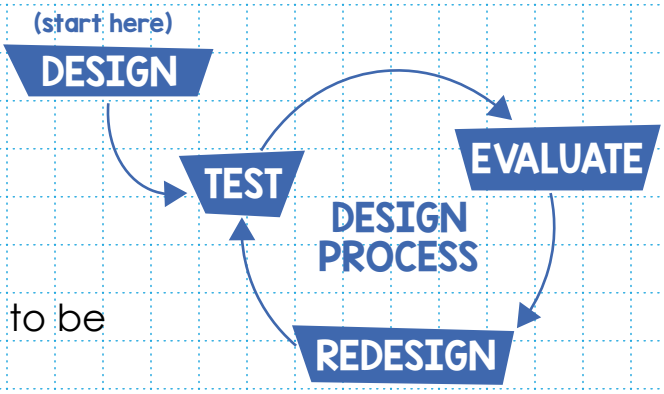
Design #

BREAKING BRIDGES

TeacherGeek

Name(s):

Date:



DESIGN

ASK What is the problem (what needs to be solved/improved)**?**

IMAGINE Sketch and describe possible solutions (different ideas that might solve the problem). Use extra paper, if needed.

PLAN Choose the best solution. Circle it. Why do you think it is best**?**

CONTINUE TO "TEST"
on page 2

TEST

Build and test your bridge! Record your observations and data.

Weight

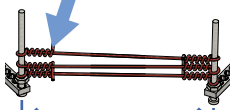
WEIGHT SUPPORTED	

EVALUATE

Did it work**?** What are its strengths/weaknesses**?** Is it economical**?**

Part Costs

PART	QTY.	UNIT COST	PART SUBTOTALS
Full Strips		$15.00 ea.	
Half Strips		$5.00 ea.	
Screws		$2.00 ea.	
Wire		$0.10/cm	
		TOTAL COST	



10cm x 3 = 30cm

Counts as

How efficient is your bridge**?**

Efficiency

EFFICIENCY = weight supported / total cost

EFFICIENCY =	

REDESIGN

Did you solve the problem**?**

Yes**?** Great! Identify a new problem (a way to make your design even better).

No**?** That's OK. What did you learn that can help you solve it in a new or different way**?**

There is no perfect design (yep... your design can still be improved). Make it stronger, cheaper, better looking, etc.

MAKE IT EVEN BETTER!!!

Grab a new Engineering Notebook Sheet.