

Student Name: _____

Popsicle Stick Bridge

Date _____

Planning and Evaluation Worksheet

Bridge Name: _____

Key Length Measurements	in (")	in (dec.)	cm
Popsicle-Stick Length =			
Popsicle-Stick Width =			
Bridge Span =			
Bridge Width =			

Conversions		
1	gm	0.035 oz
1	gm	0.002 lbs
1	oz	0.625 lbs
2.2	kg	1 lbs
1	in	2.540 cm

Material Estimates - Quantity of Popsicle Sticks	Plan	Actual
Number of Popsicle-Sticks for bridge deck =		
Number of Popsicle-Sticks for support structure =		
Number of Popsicle-Sticks to build the team's bridge =		
Number of Popsicle-Sticks over 100 =		

Design Weight Measurements	oz	gm	lbs	kg
Average Measured Popsicle-Stick Weight =		1.4		

Take average of a minimum of 3 Popsicle-Sticks
 $1.2 \text{ gm} \quad 1.4 \text{ gm} \quad 1.6 \text{ gm} \div 3 = 1.4 \text{ gm}$

Weight Estimate - Completed Bridge	oz	gm	lbs	kg
Predicted (based on design) =				
Measured (after completion) =				
Difference =				
% Difference =				

Quantity of Popsicle-Sticks x Average Measured Weight

Difference = Measured - Predicted

% Difference = ((Measured - Predicted)/Predicted) x 100

Maximum Load Weight Capacity Prediction	oz	gm	lbs	kg
Predicted (design estimate) =				
Measured (during evaluation) =				
Difference =				
% Difference =				

Difference = Measured - Predicted

% Difference = ((Measured - Predicted)/Predicted) x 100

Bridge Design Efficiency Ratio
Maximum Load Weight/Bridge Weight =

Ratio is a measure of bridge design and construction efficiency. The higher the value the greater the efficiency.

Popsicle-Stick Bridge Project Student Opinion Survey

1) What did you like most about this project?

1. _____
2. _____
3. _____

2) What did you like least about this project?

1. _____
2. _____
3. _____

3) What lessons did you learn by participating in this project?

1. _____
2. _____
3. _____

4) Would you like to do this project again? If yes, what would you do differently?

YES or NO _____

5) Do you have any suggestions on how to improve this project?

1. _____
2. _____
3. _____

6) Using the 1-5 scale below, circle the number that best indicates what you think of the Popsicle-Stick Bridge project and whether you would want to do again.

- 1 - Very much disliked doing this project. Wouldn't want to do project again.
- 2 - Somewhat disliked doing this project. Would do project only if I had to.
- 3 - Doing project was ok. Maybe want to do project again.
- 4 - Somewhat liked doing this project. Would like to do project again.
- 5 - Very much liked doing this project. Definitely would like to do project again.

