I like to have all our craft/recycling supplies laid out on the table. I let students walk around to see all the materials so that they can better plan how they will build their boat/bridge. You can use this as two separate STEM challenges, or let them choose which they would like to build like I did. On their design paper, they draw a blueprint of their design and list the materials they will use. Then after they test out their designs, they answer the question at the bottom of the page.

We used real gingerbread cookies to test our designs. We tested boats in a large bin of water and the bridge had to cross the paper river and support the weight of the gingerbread man. So much fun! And of course we got to eat our gingerbread men after we saved them! ;)

Gingerbread STEM Challenges
Name: ___________________  GINGERBREAD STEM Challenge #1

Problem: Help! The Gingerbread Man needs a safe way to cross the river. Can you build him a boat so he won’t crumble in the river?

Design: Draw a blueprint of your design.  

Materials: Make a list of materials you will use.  

Test: Did your boat float? Did the Gingerbread Man stay dry?  

yes  no
Problem: Help! The Gingerbread Man can’t go in the river or he will crumble. Can you build him a bridge to cross the river safely?

Design: Draw a blueprint of your design.

Materials: Make a list of materials you will use.

Test: Was your bridge strong enough for the Gingerbread Man?  

Yes  No
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