Over The River

Problem: Every time the gingerbread man comes to the river the Sly Fox tricks him and eats him.

Challenge: Build a bridge so the gingerbread man won’t need to rely on the fox for help.

Challenge details:
- your bridge must not touch the river.
- your bridge must be able to stand on its own.
- your bridge must be able to hold the weight of the Gingerbread Man without breaking.
- the river is 4 inches wide.

Materials:
- marshmallows
- toothpicks
- blocks
- paper
- tape
- yarn

Design your bridge below. Make a detailed diagram of what you want your bridge to look like.

Design 1
Building a Boat

Problem: Every time the gingerbread man comes to the river the Sly Fox tricks him and eats him.

Challenge: Build a boat so the gingerbread man won’t need to rely on the fox for help.

Challenge details:
- your boat must float.
- your boat must be able to hold the weight of the gingerbread?
of the Gingerbread Man without sinking or tipping over.

Bonus Challenge:
- Can you build a boat that uses wind to cross the water?

Materials:
- boxes
- paper
- popsicle sticks
- tin foil
- recyclable plastic containers

Design your boat below. Make a detailed diagram of what you want your boat to look like. Be sure to label the materials you are using.

Design 1

Design 2
Did your boat float?

Did your boat hold the weight of your gingerbread without sinking or tipping over?

Design your trap below. Make a detailed diagram of what you want your trap to look like. Be sure to label the materials you are using.

Design 1

Design 2

<table>
<thead>
<tr>
<th></th>
<th>design 1</th>
<th>design 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did your trap work?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did your gingerbread fit inside the trap?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Catch a Cookie

Problem: Every time the gingerbread man comes to the river the Sly Fox tricks him and eats him.

Challenge: Build a trap to catch the gingerbread man so YOU can eat him.

Challenge details:
- your trap must be built on a flat surface.
- your trap must fit the gingerbread man.
- your trap must be able to hold the gingerbread man.
- you must demonstrate how your trap will work once it is completed.

Materials:
- paper  - yarn  - paper clips
- blocks  - cardboard boxes

Hide and Seek

Problem: Every time the gingerbread runs away everybody chases after him.

Challenge: Design a disguise for the gingerbread
man so he can stop running.

Challenge details:
- illustrate the gingerbread man so he can disguise himself of camouflage.
- write a short paragraph about how your gingerbread man is disguised.

Materials:
- gingerbread man outline
- crayons
- writing paper
- imagination

Design your bridge below. Make a detailed diagram of what you want your bridge to look like.

Design 3 with your partner
<table>
<thead>
<tr>
<th></th>
<th>Design 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of marshmallows</td>
<td></td>
</tr>
<tr>
<td>Number of toothpicks</td>
<td></td>
</tr>
<tr>
<td>Length of bridge</td>
<td></td>
</tr>
<tr>
<td>Did your bridge hold the weight of the gingerbread?</td>
<td></td>
</tr>
</tbody>
</table>