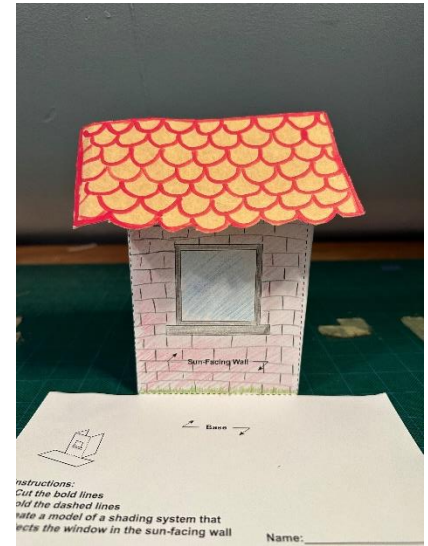
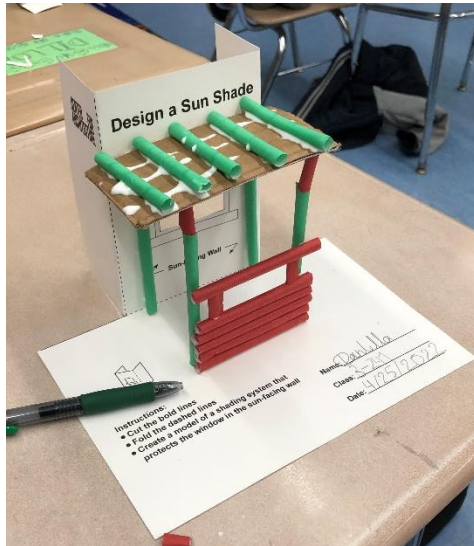


Design a Sunshade

The sun is the highest in the sky during the summer months and at the lowest during the winter months. Design a sunshade to take advantage of this natural phenomenon! You can keep the building cooler in the summer by shading the window from sunlight and keep the building warmer in the winter by allowing sunlight to enter the window. Can your design do both?



Materials

Design a Sunshade Worksheet ▪ Scissors ▪ Pencil ▪ Glue or Tape ▪ Scrap cardboard ▪ Construction paper or cardstock ▪ Craft materials ▪ Flashlight

Instructions



Step 1

Start by assembling the wall. Cut on the solid lines and fold on the dashed lines to create a standing wall. Cut out the window by poking your scissors into the middle and cutting around the frame.

Step 2

Using cardboard, cardstock, or other craft materials, create a shade to protect the window in summer but allow sun to shine under it during the winter. Use tape to temporarily hold it in place.

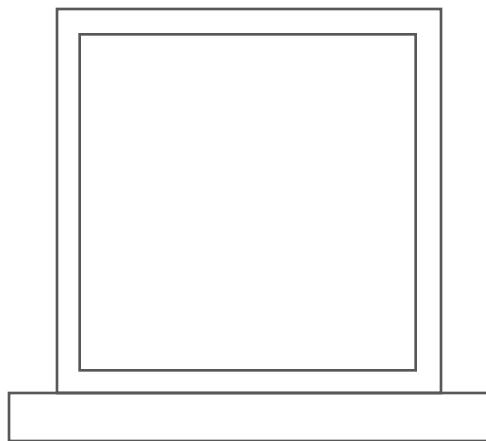
Step 3

Use a flashlight to test your design. Aim from a high angle to show the summer sun, then aim from a lower angle for the winter sun. Make any adjustments to make sure the window is in shadow during the summer and in light during the winter.

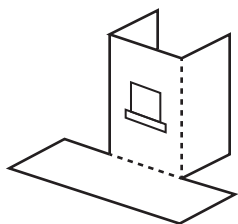
Step 4

Decorate your model and glue down any loose pieces. Let it dry and share your creation!

Design a Sunshade



↖ **Sun-Facing Wall** ↗



↖ **Base** ↗

Instructions:

- Cut the bold lines
- Fold the dashed lines
- Create a model of a shading system that protects the window in the sun-facing wall

Name: _____

Class: _____

Date: _____