

















GINGERBREAD HOUSE ACTIVITY

Name:	Date:
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Gingerbread houses are magical little homes that people build and decorate around the holidays. Sometimes people construct them with stiff sheets of gingerbread, and sometimes the builders will use cardboard for the walls of the house. Either way, you'll need something to hold the walls together! Let's look at some of the different adhesives you might use to bind the walls of a gingerbread house.

Glue comes in many forms. There's the white Elmer's glue you'll probably find in school. There's glue sticks that allow you to rub glue on without making a mess. Also, there's hot glue from a glue gun. Each works roughly the same. Most glue starts out as a liquid. It begins to harden when exposed to air, but while it's still liquid, it seeps into the pores of the objects it's being used on. This is like screwing in thousands of tiny screws. When it dries, it forms a solid bond between objects. The more free-flowing the glue, the more nooks and crannies it's able to settle into and the greater the bond. Hot glue is very liquid, for example. Glue sticks are pretty solid. Elmer's is somewhere in the middle.

Putties such as modeling clay and playdough are also adhesives. However, they're not liquid. They also form bonds like glue does but because of their state, they're less successful with flowing deep into the pores of a surface and gripping it firmly. Plus, most putties don't totally dry. While they're easier to shape and handle than glue is, they don't harden into a firm permanent bond.

Finally, another popular choice for gingerbread house adhesives are "edible hardening agents." These are especially popular because...you can eat them! Liquid chocolate and caramel can both be used as adhesives, but they need to be kept hot in order to use them like glue. This can be tricky and messy. Some people use buttercream frosting as an adhesive, but it doesn't really harden when it dries. Royal icing, on the other hand, will harden once it's dry because egg whites are used in the recipe.











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Name:	_ Date:	
1. What causes a liquid glue to h	narden?	
2. Of hot glue, glue sticks, and E one is the most free-flowing?	lmer's glue, which	
3. Why is glue a better gingerbread house adhesive than putty?		
4. What ingredient helps royal ic	ing harden?	













GINGERBREAD HOUSE ACTIVITY ANSWERS

1. What causes a liquid glue to harden?

Exposure to air

2. Of hot glue, glue sticks, and Elmer's glue, which one is the most free-flowing?

Hot glue, then Elmer's, then glue sticks

3. Why is glue a better gingerbread house adhesive than putty?

Glue will flow into the pores of a surface and grip it firmly, but putty will not.

4. What ingredient helps royal icing harden?

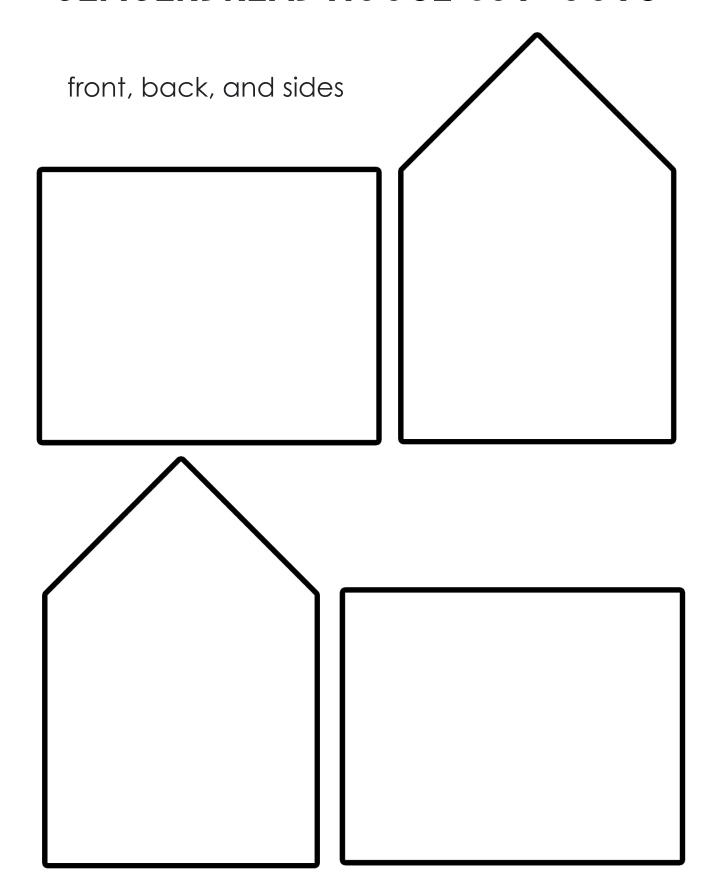
Egg whites





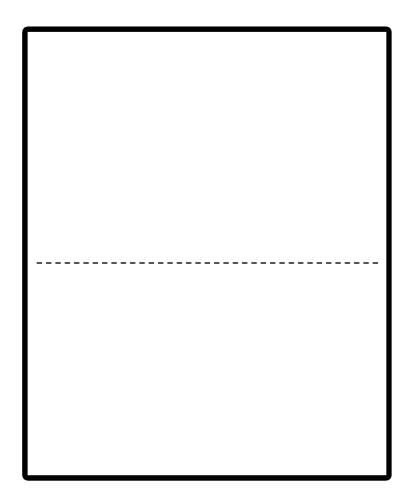


GINGERBREAD HOUSE CUT-OUTS



GINGERBREAD HOUSE CUT-OUTS

fold at dashed line to make the roof



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