

## Activity: Modeling Photolithography

### Materials:

Graham cracker  
Chocolate bar  
Marshmallow  
Aluminum foil  
Heat gun or hair dryer  
Scissors

### Directions:

1. Place a graham cracker on a piece of foil on the table top.
2. Cut another section of aluminum foil to match the size of your graham cracker.
3. Use the scissors to cut a pattern of your choice in this piece of aluminum foil.
4. Stack layers a “sandwich” onto your table as follows:
  - Table
  - Foil
  - Graham cracker
  - Chocolate
  - Marshmallow
  - Foil with pattern cut into it
5. Carefully use the heat gun to cook the top of your “sandwich”.
6. Remove the top layer of foil from the “sandwich” and answer the questions...THEN eat what's left ☺

Questions:

1. Please draw each layer of your “sandwich” and label each part as to what it represents in the photolithography process:
2. Draw the pattern you cut into the top layer of foil:
3. Draw the pattern that appeared on the marshmallow layer of the “sandwich”...how did you do?
4. What is the purpose of a substrate in the photolithography process?
5. What is the purpose of the chocolate bar in our model of the photolithography process?
6. What is the purpose of a photoresist in the photolithography process?
7. What is the purpose of the top layer of foil (the one you cut a pattern into) in our model of the photolithography process?