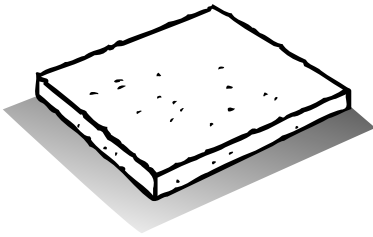


# Making a Model of Your Skin

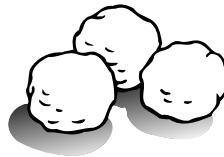
## WHAT YOU NEED



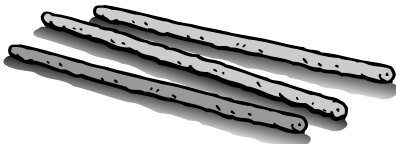
one piece of foam board  
(30 cm × 30 cm × 5 cm)



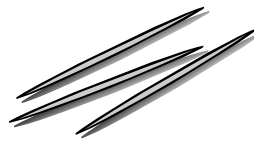
black string or  
thread (20 cm)



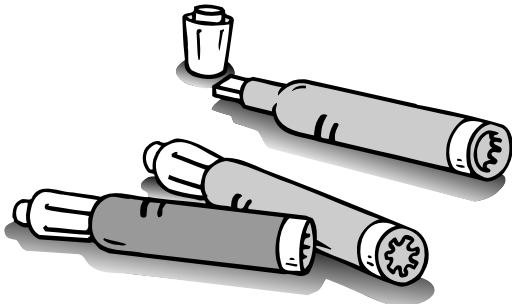
cotton balls



craft pipe cleaners  
(red, blue, and yellow)



three toothpicks



markers in various colors



scissors



glue

### Find Out

Do this activity to model the different parts of your skin.

### Process Skills

Constructing Models  
Communicating  
Inferring

### Time

- 30 minutes the first day
- 10 minutes several times over the next two weeks

# WHAT TO DO



1. Cut the foam board in half.
2. Color the very top and the top third of the four sides with any color marker to **represent** the epidermis. The white part will **represent** the dermis.
3. Look in your textbook or other reference books for a model of the layers of the skin. Use the red, blue, and yellow craft pipe cleaners to **represent** blood vessels and sweat glands. Glue them on the inside of one of the halves of the foam board.

4. Use the black string to **represent** the nerve endings. Glue them on the inside of the other half of the foam board. Use the cotton balls to represent fat cells. Glue them to the bottom of the inside pieces of the foam board.
5. **Draw** a sweat gland on the inside of one of the foam boards with markers.
6. When the glue is dry, put the two halves together. Break the toothpicks in half and insert them in the top of your model, **representing** hair. Add any other details to your model that you want.
7. After your skin model is done, **write** five to ten questions that someone can answer by pointing to the skin model and saying its name. Example: What part of the skin will contract when the body is cold? Answer—point to blood vessels.
8. **Ask** your classmates your questions about the skin.



### Questions about the Skin

Question	Answer
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	

# Conclusions

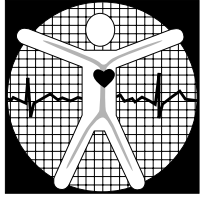
1. What could you add to your skin model to show what determines skin color?
  
  
  
  
  
  
  
  
  
  
2. What is the difference between the dermis and epidermis layers in your model?

# New Questions

1. Why do you think desert animals have thicker skin than humans?
  
  
  
  
  
  
  
  
  
  
2. Why do you think the skin has so many functions?



Name \_\_\_\_\_



# ACTIVITY

## The Sense of Touch

Use the hand lens. **Look** at the skin on the back of your hand, your forearm, and some part of your leg. **Draw** what you see.

**Back of Your Hand**

**Forearm**

**Leg**

What do you **predict** will happen when cold water is dropped on each of these areas?

Put a drop of water on each spot. **Record** your observations in the chart.

<b>Cold Water On</b>	<b>What I Saw</b>	<b>What My Partner Felt</b>
<b>Forearm</b>		
<b>Back of Hand</b>		
<b>Leg</b>		

Name \_\_\_\_\_

## Conclusions

① Compare your predictions with your observations.

② How did you **react** to each drop of water on your skin?

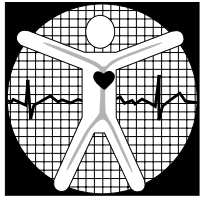
③ Did the water react the same way each time?  
**Explain.**

## Asking New Questions

① Why did different parts of your skin react differently?

② **Predict** how the skin on the top of your foot might respond to a drop of cold water. What about the skin on the sole of your foot? Test your prediction.

Name \_\_\_\_\_



# ACTIVITY

## Facial Wrinkles

Use your mirror. Look at the lines in the skin on your face as you smile and frown. **Draw** what you see.

**Smiling**

**Frowning**

**Predict** what will happen when you try to fold 20 sheets of paper.

## Activity Journal

### Lesson 2 • Skin Controls Body Temperature

Name \_\_\_\_\_

## Conclusions

- 1 Compare your **predictions** with your **observations**.
- 2 Which paper was easier to fold, the single sheet of paper, the stack of 10, or the stack of 20? **Compare** what the folds looked like on each of these faces.
- 3 How can the sheets of paper be **compared** to the layers of your skin?

## Asking New Questions

- 1 How do you think the sun or smoking can make the wrinkles in your skin more noticeable?
- 2 How does your face wrinkle when you are crying? Can you fold your paper to demonstrate this?