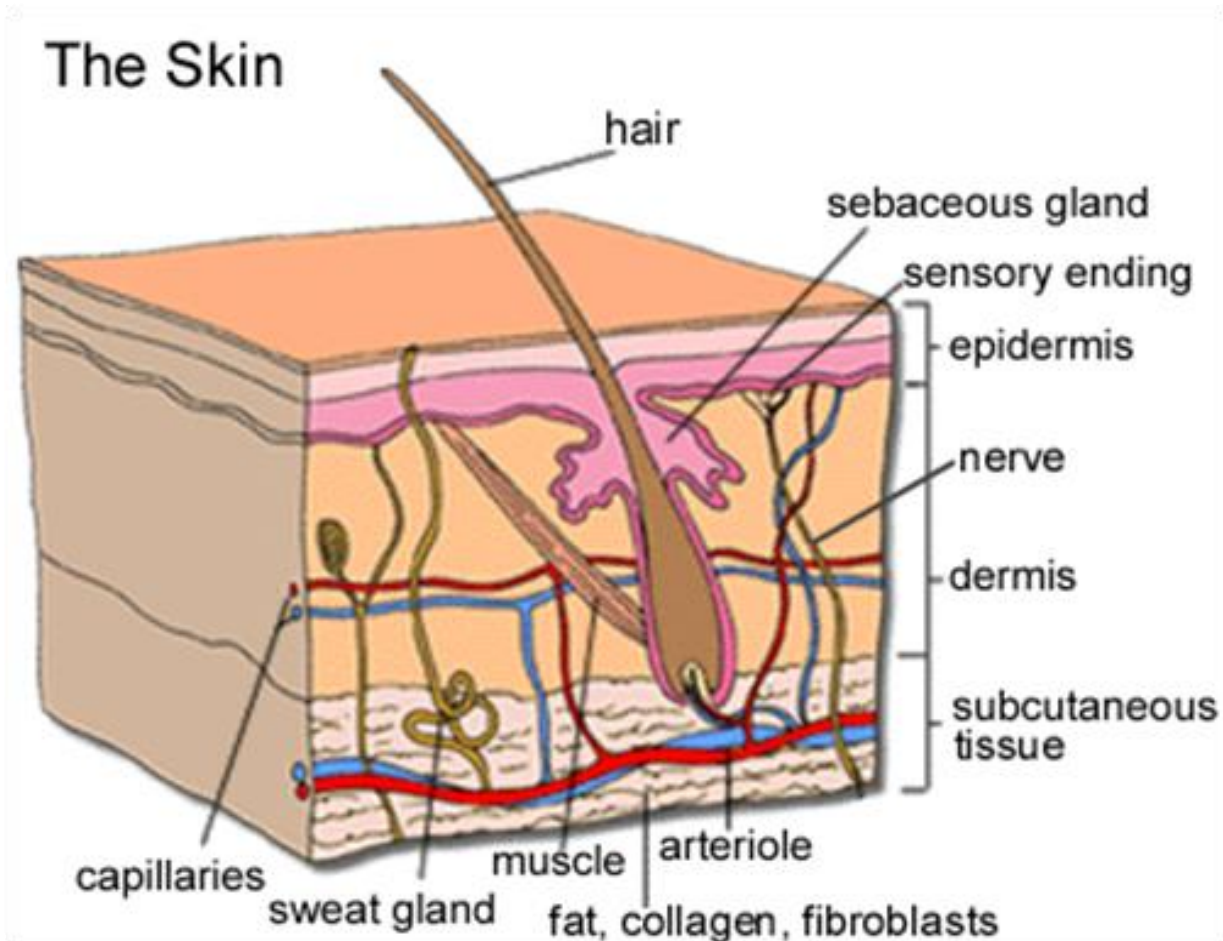


Integumentary System Lapbook



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Designed by
Cyndi Kinney

Integumentary System Lapbook
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ISBN #
Ebook: 978-1-62472-042-0
CD: 978-1-62472-040-6
Printed: 978-1-62472-041-3
Assembled: 978-1-62472-043-7

Publisher: Knowledge Box Central
<http://www.knowledgeboxcentral.com>

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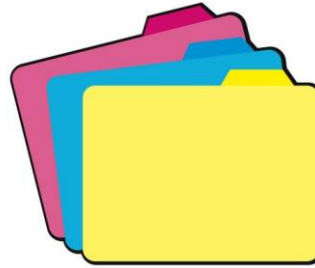
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Special thanks to Carrie Martin-Vegue. She is the author of the Study Guide that is included in this product. The Study Guide is being used with her permission and is now owned by Knowledge Box Central.

How do I get started?

First, you will want to gather your supplies.



*** Assembly:

***Folders:** We use colored file folders, which can be found at Walmart, Sam's, Office Depot, Costco, etc. You will need between 1 and 4 file folders, depending on which product you have purchased. You may use manila folders if you prefer, but we have found that children respond better with the brightly colored folders. Don't worry about the tabs...they aren't important. Within this product, you will be given easy, step-by-step instructions for how to fold and assemble these folders. *If you prefer, you can purchase the assembled lapbook bases from our website.*

***Glue:** For the folder assembly, we use hot glue. For booklet assembly, we use glue sticks and sometimes hot glue, depending on the specific booklet. We have found that bottle glue stays wet for too long, so it's not a great choice for lapbooking. For gluing the folders together, we suggest using hot glue, but **ONLY** with adult supervision. These things get **SUPER** hot, and can cause **SEVERE** burns within seconds.



***Other Supplies:** Of course, you will need scissors. Many booklets require additional supplies. Some of these include metal brad fasteners, paper clips, ribbon, yarn, staples, hole puncher, etc.



You may want to add decorations of your own, including stickers, buttons, coloring pages, cut-out clipart, etc. Sometimes, we even use scrapbooking supplies. The most important thing is to use your imagination! Make it your own!!



Ok. I've gathered the supplies. Now how do I use this product?

Inside, you will find several sections. They are as follows:

1. **Layout and Pictures:** This section gives instructions and diagrams that will tell the student exactly how to assemble the lapbook base and where to glue each booklet into the base. Depending on the student's age, he or she may need assistance with this process, especially if you choose to allow the student to use hot glue.

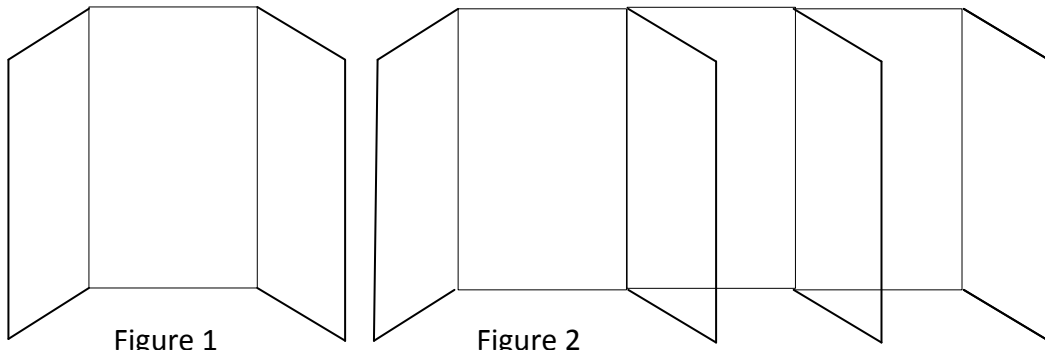
2. **Student Instruction Guide:** This section is written directly to the student, in language that he or she can understand. However, depending on the age of the child, there may be some parent/teacher assistance needed. This section will also tell the student exactly what should be written inside each booklet as he or she comes to it during the study, as well as telling the student which folder each booklet will be glued into.

3. **Booklet Templates:** This section includes ALL of the templates for the booklets. These have been printed on colors that will help to improve retention of the information presented, according to scientific research on color psychology.

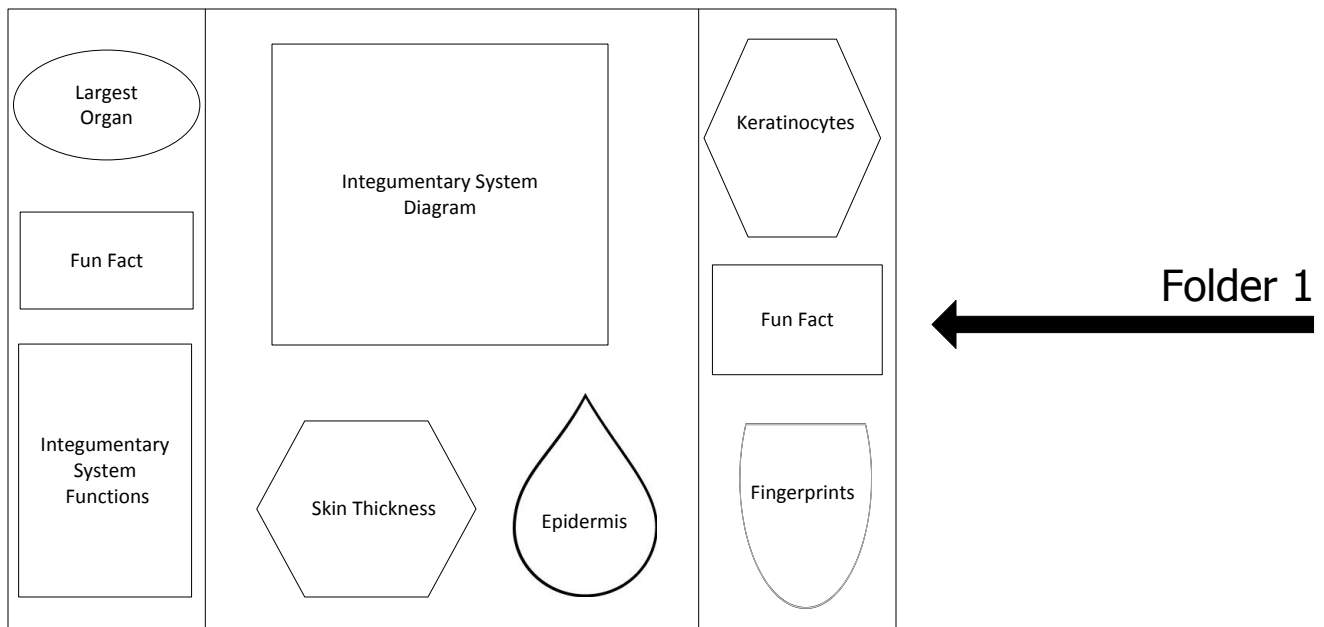
Integumentary System Lapbook

Layout & Pictures

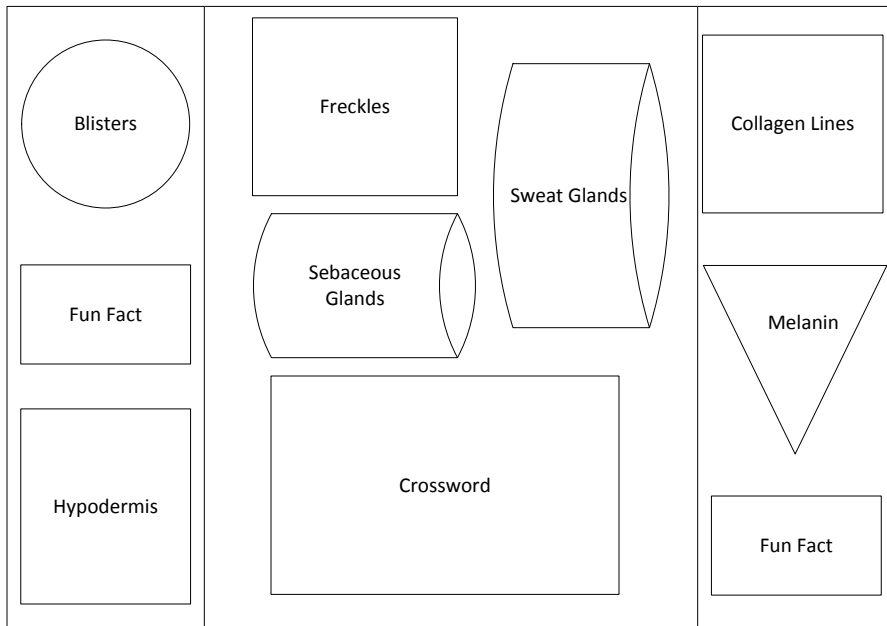
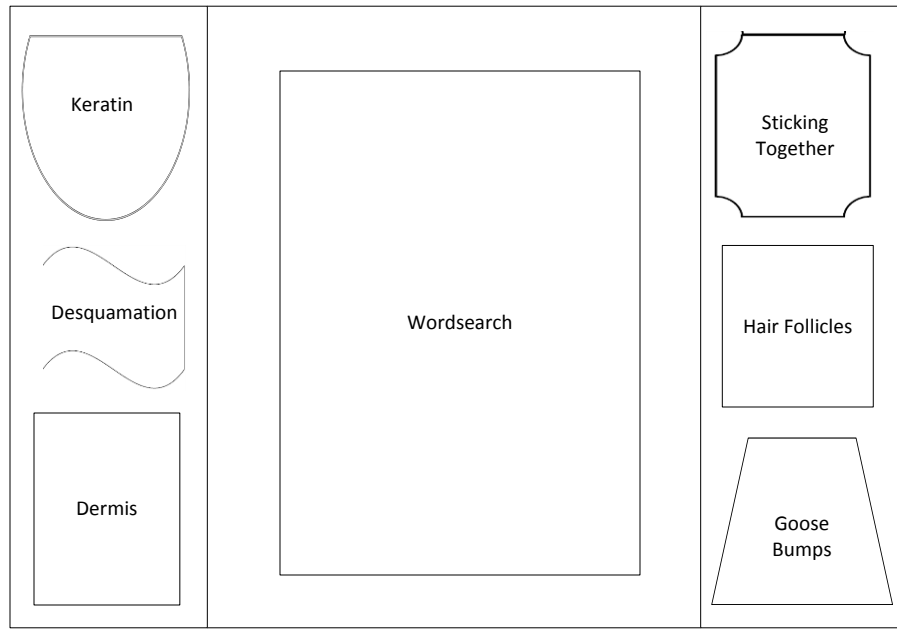
You will need 3 folders of any color. For each folder, you will fold both sides toward the original middle fold and make firm creases on these folds (Figure 1). Then glue the folders together along one flap (Figure 2).



This is the "Layout" for your lapbook. The shapes are not exact on the layout, but you will get the idea of where each booklet should go inside your lapbook.



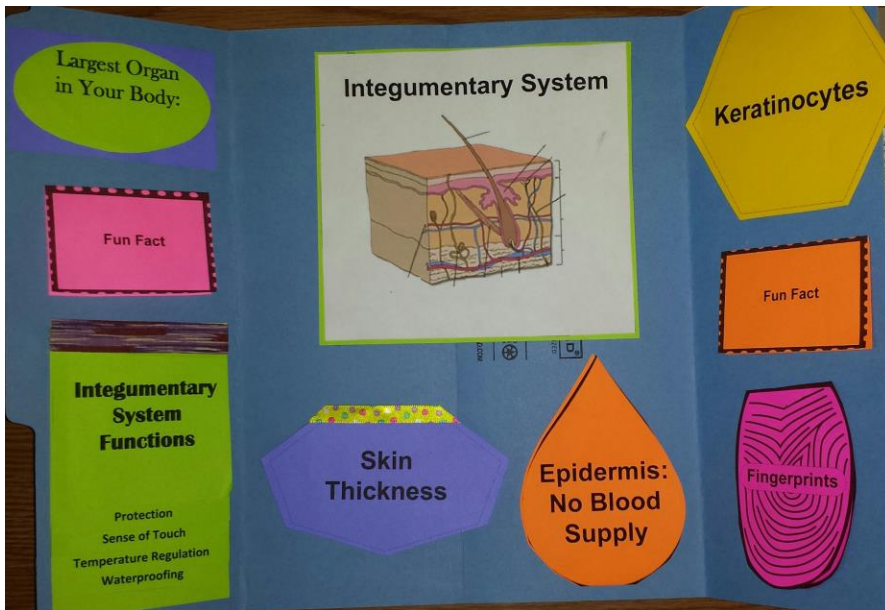
Folder 2



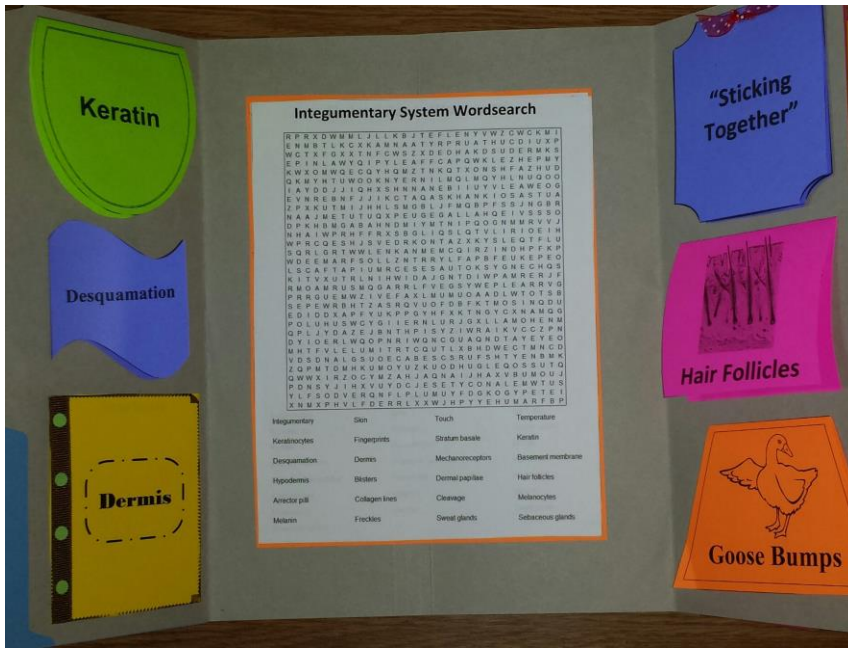
Folder 3



Below and on the next page are pictures of the completed lapbook. This should help in figuring out how to assemble the booklets and then how to put it all together!

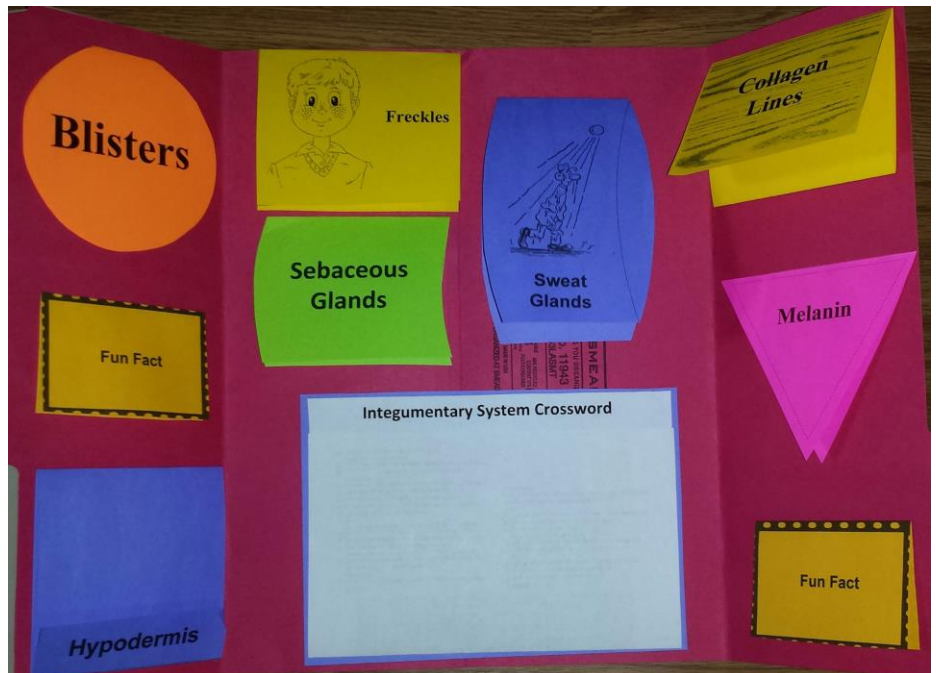


← Folder 1



Folder 2

Folder 3



Integumentary System Lapbook

Student Instruction Guide

Booklet 1: Largest Organ

Assembly Instructions: Cut out along the outer black line edges of this one-page booklet. Glue to another piece of paper of a different color. Trim around the edges to create a small border.

Completion Instructions: The integumentary system includes the largest organ in your entire body. What is it?

Booklet 2: Integumentary System Functions

Assembly Instructions: Cut out along the outer black line edges of each page. Stack so that the title is on the top and the pages get longer toward the back. Secure at the top with staples or metal brad fasteners.

Completion Instructions: The integumentary system does a great deal for you each and every day. Inside this booklet, tell about some of its most important functions.

Booklet 3: Skin Thickness

Assembly Instructions: Cut out along the outer black line edges of the booklet and the text page. Fold the booklet so that the title is on the front. Glue the text page inside.

Completion Instructions: Inside this booklet, tell where your skin is the thickest and the thinnest on your body.

Booklet 4: Skin Diagram

Assembly Instructions: Cut out along the outer black line edges of the diagram. Glue it to another piece of paper of a different color. Trim around the edges to create a small border.

Completion Instructions: Using the diagram in your Study Guide as an example, label the parts of the skin.

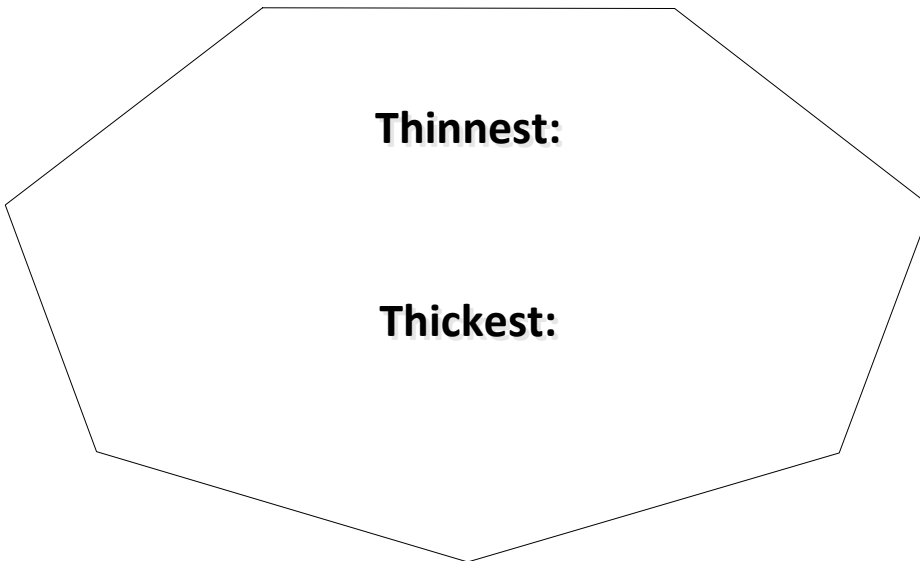
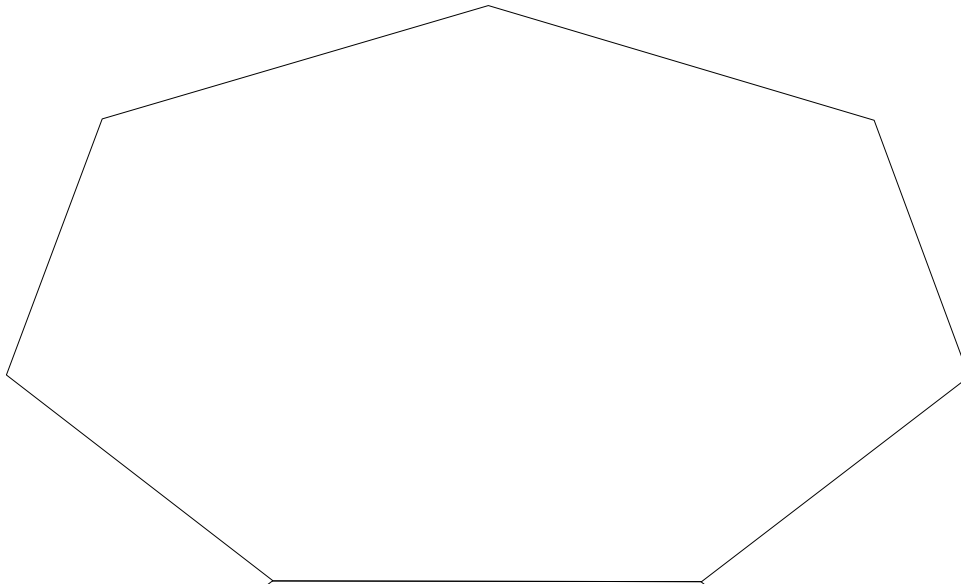
Integumentary System Functions

Protection

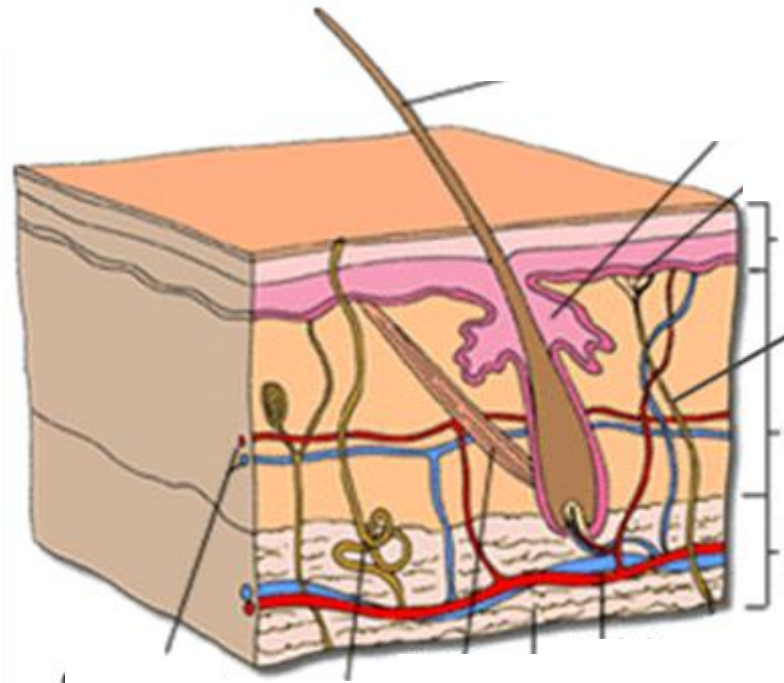
Sense of Touch

Temperature Regulation

Waterproofing



Integumentary System



The Integumentary System

Lapbook

Teacher's/Study Guide

Introduction

The integumentary system has the largest organ in your entire body. In fact, it is about 15% of your body weight. And yet it is an organ that we often give no thought to. It's your skin. It's what covers all vertebrates' bodies (a vertebrate is a living creature with a backbone).

The skin does a great deal for you each and every day. One of its important functions is protection against pathogens. In other words, it plays an important part in keeping you healthy. It provides a barrier between the inside of your body and the outside world that is filled with germs and bacteria.

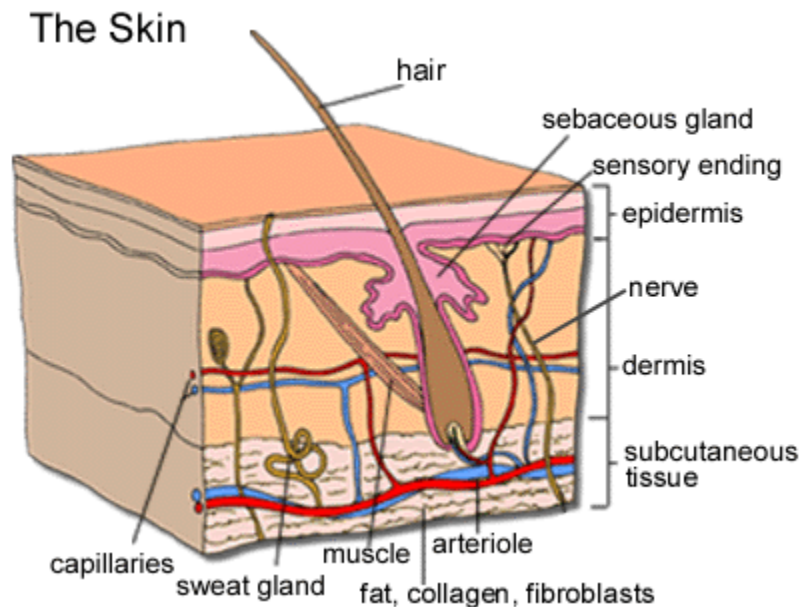
Your skin is able to stretch. It's flexible, and it's also able to repair itself when you get a cut or a bruise.

The skin provides your sense of touch. In the skin there are nerves. And these nerves send signals to your brain when you touch things so that you can figure out what it is that you are touching. When you touch a hot stove, the nerve cells in your skin send messages to your brain so that you know to quickly pull your hand away. When you touch a seashell at the beach, your sense of touch allows you to explore it and feel the texture on it.

The skin helps to regulate your temperature, keeping you from getting too hot or too cold. One of the ways it does that is through sweating and evaporation. When you get hot, your sweat glands, which are in your skin, cause you to perspire. As the sweat evaporates off your skin, your body temperature cools down.

Another important function of the integumentary system is waterproofing. When you go for a quick dip in the pool your internal organs would swell up with water if it weren't for your skin. Instead, your skin provides a barrier that helps to keep water from soaking inside your body.

Your skin is the thinnest around your eye where it is 1/50 of an inch thick. And it's the thickest on the back of your shoulders where it is 1/5 of an inch thick. Your skin is composed of many layers and parts. The first layer is called the epidermis. It's the layer that you can touch and see.



<http://www.nku.edu/~dempseyd/SKIN.htm>

Epidermis

The majority of your epidermis is made up of cells called **keratinocytes**. The epidermis is composed of many layers of cells. They are produced towards the bottom of the epidermis. As they multiply, they push their way up towards the top. By the time a keratinocyte reaches the top layer of the epidermis, where you can see it, the cell is completely dead.

The epidermis has no blood supply, and without blood, cells die because blood transports the nutrients necessary to keep cells alive. Notice in the above illustration that there are blood capillaries in the dermis layer of the skin. These capillaries go right up to the top of the dermis where it touches the epidermis. So the cells in the epidermis that are close to the dermal layer still receive some nutrients because they can travel out of the blood vessels and into the cells surrounding the blood vessels. However, as the keratinocytes multiply and move towards the top of your skin, they move away from that blood supply and therefore