**Integumentary System Lab Lesson Plan**

*Last updated: 6/14/2023*

**Resources**
Required resources for students:

* Visible Body Suite
* Integumentary System Lab Worksheet

These additional resources can be offered as a refresher for students or a guide for the lab:

* Walk through the anatomical variations of skin with the Visible Body premade tour “Skin Tissue and Variations” found here: <https://www.visiblebody.com/tours>. Click the Open With drop-down menu to open the tour in Visible Body Suite—either through Courseware or by copying the sharelink and launching it in the app.
* Dive deeper into skin and hair with these Visible Body blog posts: <https://www.visiblebody.com/blog/marvelous-melanin-a-pigmentation-primer>

<https://www.visiblebody.com/blog/lets-untangle-this-all-about-hair>

<https://www.visiblebody.com/blog/anatomy-and-physiology-five-things-about-the-integumentary-system>

**Objectives**

By the end of this lesson students should be able to:

1. Describe the major functions of the integumentary system.

2. Identify the major structures of the skin and describe their functions.

3. Identify the major structures of hair and describe their functions.

4. Identify and describe the determinants of pigmentation, hair shape, and hair color.

**Introduction**
10 minutes: Give students a brief review of the integumentary system and its functions. You may also use additional resources from Visible Body in the links provided above. After your review, tell the students (on their own or in groups) to use the worksheet and Visible Body Suite to answer the questions on the worksheet.

**Student activity**
45 minutes: Students watch an animation and interact with 3D models while completing the lab activity.

1. Activity 1: Skin Overview
	* Skin Overview: Explore the functions of the integumentary system
	* Touch: Explore the different types of touch receptors
	* Melanin and Melanocytes: Explore the factors that influence skin pigmentation
2. Activity 2: Hair Overview
	* Hair Overview: Explore the functions of hair
	* Curly Hair vs Straight Hair: Explore the factors that influence hair color and shape