



STEM Career Adventures: Dermatologist

Learning about Skin



Adventure Description:

In this adventure, you will think like dermatologists and create a model of a skin and a new, cool bandaid!

Step 1: Background on Dermatology and Skin (10 minutes)

- Ask explorers why we have skin. Make a list on the board of explorers' reasons why humans have skin. Show **Discovery Picture: Skin Up Close**. Explain to explorers that this is what skin looks like under a microscope.
- Explain to explorers that we have skin for multiple reasons. Show **Discovery Link: Why We Have Skin**.
- Explain to explorers that dermatologists are doctors that learn about skin. Ask explorers why dermatologists would want to learn about what the skin is made of.
- Show **Discovery Picture: Information on Dermatologists**. Explain to explorers that dermatologists want to make sure that people's skin is healthy. For example, dermatologists need to know what skin is made of so they can treat a skin problem, like a sunburn or a rash.
- Explain to explorers that there are 3 layers of skin that dermatologists learn about. Provide explorers with **Handout: Layers of Skin**. As a group, discuss each layer of skin.
 - *Extra time?* Show this funny video and song to explain each layer of skin (**Discovery Link: Skin Song**)

Step 2: Creating a Model to Learn about Skin (20 minutes)

- Explain to explorers that they will be creating a model of skin. A model is a pretend version of something (show **Discovery Picture: Model of Skin**).
- Ask explorers why scientists and doctors would create a model of skin.
 - Explain that a model lets doctors and scientist study skin without having to have a real person involved. This allows doctors to test out ideas and learn about skin without harming a living being.

Contact Allison, Director of Customer Service, with any questions or feedback at 314-272-2560 or allison@rozzylearningcompany.com

Send photos of your explorers and their projects to allison@rozzylearningcompany.com to be featured on Rozzy's website, social media pages, and blog!



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- Provide explorers with art supplies and building materials.
- Have explorers work in pairs or small groups to build a model of skin. Groups will decide what materials to use for each layer of skin. Have explorers refer to **Handout: Layers of Skin** so they can remember what the purpose of each layer of skin is.
 - Tip: Discuss which layers to create first. Explorers should create the subcutaneous layer first because it is will be on the bottom.
- Have explores spend 5 minutes creating each layer of skin. After 5 minutes is up, tell explorers to move on to build the next layer of skin.

Step 3: Creating a New Bandaid (15 minutes)

- Explain to explorers that dermatologists are trying to solve a problem: there aren't bandaids that can tell you when they need to be changed. Dermatologists want to create a special bandaid using technology that will light up with a certain color when it needs to be changed.
- Provide explorers with **Handout: Bandaid Requirements**. As a group, read through the requirements needed.
- Explain to explorers that they will now design a bandaid that can go on top of their skin model. Provide explorers with art and building supplies to design their bandaid.

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Materials List

Provided online:

- Discovery Picture: Skin Up Close
- Discovery Link: Why We Have Skin
- Discovery Picture: Information on Dermatologists
- Handout: Layers of Skin
- Discovery Link: Skin Song (optional)
- Discovery Picture: Model of Skin
- Handout: Bandaid Requirements

Not provided:

- Art supplies and building materials
- Variety of materials that are soft and spongy (to be subcutaneous fat layer)
- Variety of materials that are waterproof (to be epidermis layer)
- Variety of materials that are long and thin (to be blood vessels in dermis layer)

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