Take a Close Look with Microscopes

Sections

Joey Scouts | Cub Scouts | Scouts | Venturer Scouts | Rover Scouts

Scouts VICTORIA

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Challenge Areas

COMMUNITY | CREATIVE | OUTDOOR | PERSONAL GROWTH

Scout Method Elements

COMMUNITY INVOLVEMENT | LEARNING BY DOING | NATURE AND THE OUTDOORS | PROMISE AND LAW | PERSONAL PROGRESSION | PATROL SYSTEM

SYMBOLIC FRAMEWORK | YOUTH LEADING, ADULTS SUPPORTING

SPICES Growth Areas

CHARACTER | EMOTIONAL | INTELLECTUAL | PHYSICAL | SOCIAL | SPIRITUAL

The Adventure

Zoom in on the world around you and explore microscopes.

Plan

1. Investigate microscopes - what are they, how do they work, and what types of microscopes are there? You may find this website useful as a starting resource.
2. Get familiar with how things might look under a microscope using this online microscope. You may require assistance from an adult to do this. Make sure to play around with the different settings to see what impact they have.
3. Read the safety information and discuss with your leaders or another appropriate adult what safety equipment, precautions, and supervision may be required. Ensure that you have these safety measures in place before starting the 'Do' section.
4. Gather the equipment and ingredients you will need for this activity. You will need the following: a microscope - ideally either a compound microscope, such as in Image A, or a USB microscope, such as in Image B. You will also need object to look at under a microscope. Get creative and inquisitive.

Image Source: https://www.fishersci.se/shop/products/compound-microscope-obl-2/p-7226227

Image Source: https://www.haines.com.au/microscope-digital-usb2-0-5mp.html

Do

1. Set up your microscope and work station.
2. Investigate a range of materials and objects under the microscope and record your observations. You will need to make sure that you are focusing your microscope to the image.

Review

1. What did you find most interesting to look at under the microscope? Did anything surprise you?
2. What did you learn in doing this activity and what did you enjoy most?
3. What would you do differently next time to improve the activity?
4. How do you think microscopy might be useful in the real world such as in criminal investigations?

Variations

- This Challenge Card can pair well with other forensics and biology based activities and Challenge Cards to build a large program.

- Depending on the section and challenge area used, this challenge card can also be paired with a police station visit or some other law enforcement related community involvement.