

MAISA and the REMC Association of Michigan Best Practices in Technology Integration Plan

Title: An Eye on Science

Subject(s): Science

Intended Grade Level(s): Second Grade - Seventh Grade

Description:

The purpose of this lesson is to demonstrate student's knowledge of the human eye and its parts. Before this project, children need to be taught about the human eye, its functions, and its parts through books, posters, videos, and filmstrips. Before children dissect a sheep's eye under adult guidance, the teacher and media specialist will model, using Kid Pix Studio, drawing and labeling a cross-section of the human eye. Parts should be colored and labeled. Each drawing will be narrated and can be combined to create a Kid Pix Studio Slideshow.

Curriculum Benchmarks:

[MI.SCI.IV.4.MS.4](#). Describe how light passes through the parts of the eye and is received by the brain. (Page 86)

[MI.SCI.II.1.LE.2](#) . Show how scientific concepts can be interpreted through creative expression and diagrams. (Page 70)

Materials/Hardware/Software:

Any computer, MAC or IBM, Kid Pix Studio, nonfiction books and posters about vision, eyes, sight and healthy habits that are age appropriate and at different reading levels.

Also: Eye model, art markers, paper, and pencils. Microphones may be necessary to record on some computers.

Activities/Procedures:

1. Teacher will introduce the parts of the human eye using books such as
Look at Your Eyes Paul Showers
A Cane in Her Hand Ada B. Litchfield
Arthur's Eyes Marc Brown
The Eye and Seeing Steve Parker
Filmstrip "Discovering Your Senses: Your Eyes are for Seeing"
American School Publishers

Other Resources, such as an eye model and posters

The importance of sight may also be discussed as students read biographies about Louis Braille and Helen Keller. Additional information will be presented to students through posters and exploration of a scientific model of the eye. Teacher will monitor students' progress to assure that they are ready to draw their own diagram of the human eye.

2. Students will create a rough draft of their eye diagram using resources. Teacher will check to insure that students have included all parts including *sclera, cornea, lens, vitreous body, iris, pupil, retina, & optic nerve*. Each part should be labeled. Students may check each other's work. Students may also illustrate what their eye is receiving as a picture in the brain. This aspect about the brain can be minimized as long as students understand that the message has to get to the brain for vision to take place. Teachers may choose to elaborate upon this part and allow the students more creativity. More advanced students may also draw an image 'upside down' in the middle of the eye diagram, behind the lens, to show what really happens in the eye. They should then show the image 'right side up' on the retina. The way it is carried by the optic nerve into the brain.
3. Teacher and media specialist will determine a time when Kid Pix Studio can be taught to the class. After initial introduction to the program and how it is used, teacher or media specialist will demonstrate drawing the eye diagram, including appropriate tools for labeling.
4. Children will use their rough drafts to draw their eye diagrams on Kid Pix Studio. It is best if the students draw all of the parts first and then label.
5. When the diagrams are complete, each will be saved to be compiled into a class slideshow. Each diagram can also be narrated by each student, telling the parts of the eye or discussing what they have learned about sight, or telling how to have healthy eyes safe vision. This part depends upon each teacher's time and creativity.

Assessment/Evaluation:

1. Observation of accuracy of diagram:
 - A. Physical features of the eye need to be accurately represented and sized in relationship to one another.
 - B. Names for the parts need to be correct.
2. Observation of the ease with which students move through this project: Students should demonstrate, after step three of the lesson plan, comfort in completing the rest of this project on their own.
3. Diagrams should be neat and accurately labeled.

Follow-up Activities:

1. A hard copy of each diagram will be produced, preferably on a color printer, although children can color their product if necessary. The final hard copy may be added to student's portfolio, displayed at open house or in the science room.
2. The Kid Pix Slideshow can also be shown at open house, curriculum nights and so on.

Please note that the diagram included was not drawn on Kid Pix Studio and there will be differences.

Name: Amy Rice-O'Rourke

School District Rochester Community Schools

School Hampton School

Address: 530 Hampton Circle, Rochester Hills, MI 48307

