

Glue stick sunset

As the day end, the sky is painted with all sorts of beautiful colours. But why isn't the sky red and orange during the rest of the day? Why are the colors less vibrant the further they are from the horizon? This activity will help you understand the answers of these questions.

ELECT# 4.5 Inquiry- observing and forming a question.

collecting information

ELECT# 2.6 Positive attitude towards learning new things.

Materials needed:

- Mini flashlight.
- Two to four hot glue sticks.
- Optional- white background (paper, wall, cloth)
- Clear tape.



Directions:

1. Tape the ends of the glue sticks together.
2. Hold your flashlight close to one end of the glue stick. Laying it on a white surface will help see the color better.
3. Notice the color difference between the ends of the hot glue stick. Contemplate why this happens.



Explanation:

The sun gives off light which is made up of every color of the rainbow. Those colors are organized from highest to shortest wavelength, making blue and violet the shortest colors of the wavelength. The shorter the wavelength of the light, the more it scatters as it interacts in the atmosphere. Because blue has such a short wavelength, it is scattered about ten times more than red light. Now you may ask why it is that the sky isn't violet? The answer is that the sun gives much more blue light than violet light, so you can't see it.



Similarly, the hot glue stick end closest to your flashlight should be a whitish blue color.

The reason why the sky is red during the sunset is because light takes a longer path through the atmosphere when it is on the horizon than when it is directly overhead. By that time, it gets to your eyes, most of the light is scattered out and you could see the colors with higher wavelength.

This is why the color of the glue sticks gets yellow the further it goes.

