

Name: _____ Per: _____



★ WONDER ↓

Place on line below

[MUST BE IN THE FORM OF A QUESTION!]

don't forget the quotation marks!

Why is the sky blue?

★ ANSWER TO MY WONDER

[At least 5 EXACT QUOTES that directly answer your question]

1. "Dust particles and water droplets are much larger than the wavelength of visible light. When light hits these large particles, it gets reflected, or bounced off, in different directions. The different colors of light are all reflected by the particle in the same way. The reflected light appears white because it still contains all of the same colors."
2. "Gas molecules are smaller than the wavelength of visible light. If light bumps into them, it acts differently. When light hits a gas molecule, some of it may get absorbed. After awhile, the molecule radiates (releases, or gives off) the light in a different direction. The color that is radiated is the same color that was absorbed. The different colors of light are affected differently. All of the colors can be absorbed. But the higher frequencies (blues) are absorbed more often than the lower frequencies (reds). This process is called Rayleigh scattering. (It is named after Lord John Rayleigh, an English physicist, who first described it in the 1870's.)"
3. "The blue color of the sky is due to Rayleigh scattering. As light moves through the atmosphere, most of the longer wavelengths pass straight through. Little of the red, orange and yellow light is affected by the air. However, much of the shorter wavelength light is absorbed by the gas molecules. The absorbed blue light is then radiated in different directions. It gets scattered all around the sky. Whichever direction you look, some of this scattered blue light reaches you. Since you see the blue light from everywhere overhead, the sky looks blue."
4. "As you look closer to the horizon, the sky appears much paler in color. To reach you, the scattered blue light must pass through more air. Some of it gets scattered away again in other directions. Less blue light reaches your eyes. The color of the sky near the horizon appears paler or white."
5. "Light travels through space in a straight line as long as nothing disturbs it. As light moves through the atmosphere, it continues to go straight until it bumps into a bit of dust or a gas molecule. Then what happens to the light depends on its wave length and the size of the thing it hits."

Don't forget the parenthetical citation!

("Why is the sky blue?") ← Parenthetical Citation

[Staple an additional piece of paper this template if you need more space]

Don't forget the long citation!

FULL CITATION FOR THIS SOURCE ↓

[copy from the citation generator and paste it in the space below]

"Why is the Sky Blue?" Why is the Sky Blue? Science Made Simple, n.d. Web. 12 Jan. 2017.