

Black-Brown and Yellow-Brown-Red Skin Pigmentation Elements are Shared in Common: Using Art and Science for Multicultural Education

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Abstract : New research on the human genome has revealed secrets to the variation in skin pigmentation found in all human populations. Application of this research to multicultural education has a profound effect on students from all backgrounds. This paper identifies the four locations in the human genome that code for variation in skin pigmentation worldwide. The research makes this new knowledge accessible to students of all ages as they participate in an art project that brings these scientific multicultural concepts to life. Students participate in the application of breakthrough scientific principles through hands-on art activities where they simulate the work of the DNA coding to create their own skin tone using the colors expressed to varying degrees in every people group. As students create their own artwork handprint from the pallet of colors, they realize that each color on the pallet is essential to creating every tone of skin. This research project serves to bring people together and appreciate the variety and diversity in skin tones. As students explore the variations, they create pigmentation with the use of the eumelanins, which are the black-brown sources of pigmentation, and the pheomelanins, which are the yellow-reddish-brown sources of pigmentation. The research project dispels myths about skin tones that have divided people in the past. As a group project, this research leads to greater appreciation and understanding of the diverse family groups.

Keywords : diversity, multicultural, skin pigmentation, eumelanins, pheomelanins, handprint, artwork, science, genome, human

Conference Title : ICMBE 2024 : International Conference on Multiculturalism and Bilingual Education

Conference Location : Miami, United States

Conference Dates : March 11-12, 2024