

## **Mathematics and the Arts**

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1. Mathematics plays a great role in shaping and reforming the arts as well as setting out high standards in science and thinking to encourage man to push back the limits of the unknown.
2. Mathematical achievements in science have made for today's common aesthetic artifacts such as music notes, fine art topology and authentic validation that used to be pure theoretical tools.
3. Broadening on many scientific inventions here is a unique new understanding of the arts as developed by mathematics to improve its application and performance.
4. Modern artists have benefited enormously from scientific investigation into mathematics of light and shade.
5. Surprisingly, most architectural wonders are based on the golden ratio or golden mean, represented by the Greek letter phi ( $\phi$ ).
6. Comparing mathematics to art G.H.Hardy emphasises their characteristic feature – “beauty”, which “is the first test: there is no permanent place in this world for ugly mathematics.”
7. Rigid mathematical methods are frequently applied in the arts, perfecting and revolutionising the image.
8. Mathematical experimental series of the past anticipated the ideas of the prominent artists of the present.
9. Mathematics claims to have solved the mystery of universal harmony.
10. The impact of mathematics on the arts reflects a beautiful mind that is in the eye of the mathematician.

**The teacher's signature:** \_\_\_\_\_