School Name _____     **Student Name** _____

Teacher Name _____     Date ____/____/20____          Per. ____
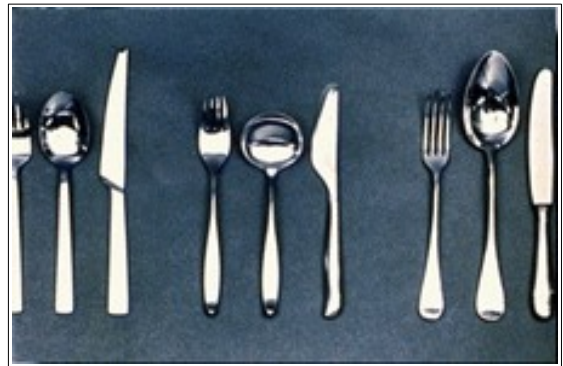
# **Proportion**

- *Fill in the blanks with the following words:*

exaggerated                    mathematical                    ratio
formula                        monumental

Proportion refers to the relationships of parts to a whole. Our sense of proportion in art often relates to the proportions of the human body. We say artworks are life-sized, _____ (much larger than life-size) or miniature (very small). Proportions are often normal and expected. They can also be exaggerated and distorted. Sometimes proportions are idealized – more perfect than you might see in nature.



Systems of _____ proportions fascinate artists. The ancient Greek sculptor Polykleitos used a mathematical formula for his idealized sculptures of athletes. The height of the body was eight times the length of the head.

Another system, known as the Golden Section or the Golden Mean, states that the dimensions of the small part (a) must relate to the larger part (b) as the larger part (b) relates to the whole (a+b). In artwork you can use the _____ of 1 to 1.6 to draw shapes with proportions like the Golden Mean.
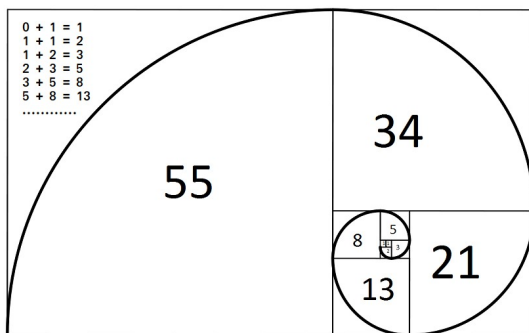


A related, predictable _____ of proportion, discovered by the medieval mathematician Fibonacci, is a progression of numbers often seen in nature. Each number is the sum of the two numbers that go before it. The numbers are 0, 1, 2, 3, 5, 8, 13, 21, 34 and so on. The numbers grow in size but the distances between them do not grow in proportion, especially as the numbers get larger.

Scale is the relative size of something compared with what you expect. You do not expect to see a toothbrush bigger that a bed. Artists often change the normal size, scale or proportion of things to show their importance in artworks. Caricature is the use of _____ proportions for humor and satire.