WHERE SCIENCE, HISTORY AND ART CONNECT

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Mission: Raven Hill provides a place that enhances hands-on and lifelong learning for all ages by connecting science, history \& the arts.

## Body ratios

Ratios compare two numbers. Today, we are measuring our bodies and body parts to create ratios and comparisons. You might need someone to help you with some of the measurements. You will need string and scissors to cut pieces, a measuring tape (optional) and paper \& pencil, if you want to record your measurements and ratios! I'm using one of my "robots" for the steps below! You can practice on a doll or stuffed animal, if you want! Have someone measure your height. Measure and cut a piece of string that same length. Now you have a piece of yarn that is as long as you are tall. If you want, you can measure yourself by lying down on the floor with your heels against a wall and putting a piece of tape on the floor at the top of your head. Then measure the distance from the wall to the tape and cut a piece of string that length. Compare your height to your arm span, which is the distance between the middle fingertips on each hand when you stretch your arms out as far as they can reach. Compare it to your piece of string or measure with the tape measure. The two measurements form a ratio of approximately a one to one ratio for adults, meaning that your arm span is about equal to your height. This may differ, depending on age. Check everyone in the family! Measure some other body parts and compare with ratios. For example, measure your upper arm (humerus) and upper leg (thigh). Or compare your hand and foot measurements. How do they compare? There are many more human body ratios; some are independent of age, and others change as we grow from a baby to an adult. About 530 years ago, Leonardo daVinci made a drawing showing body proportions that has become very famous. His drawing represents ideal human body proportions. Many artists use body measurements to make their drawings look realistic. Make a drawing of yourself using your measurements. Even a stick figure will work! Enjoy comparing body parts with ratios!


