MEASURE THE EFFECT OF GRAVITY ON YOUR HEIGHT

Measure yourself twice during the day to see that gravity makes you smaller as the day goes on!

You will need:

- ☐ Measuring tape
- ☐ Masking tape
- ☐ Any book
- ☐ A friend or family member

How to measure the effect of gravity on your height:

1. Ask a friend or someone in your family to measure your height at the beginning and at the end of the day. To ensure that the measurement is accurate, make sure that the same person measures you both times.

2. Stand in front of a wall with your heels and head against it. Keep your head straight.

3. Have your friend take the measure by placing a book flat on your head and sticking a length masking tape just below the book where it meets the wall.

4. Do this once at the beginning of the day and again at the end of the day.

5. At the end of the day, compare the two marks. You will notice that the mark you made at the end of the day is lower because you grew shorter during the day.

6. If you wish, measure the difference between the two marks to see exactly how much you have shrunk.

How it works:

Why did you grow shorter during the day? The reason is the effect of gravity on your spine. Although we can't feel it, gravity is always pushing us toward the ground.

When you are sleeping in your bed at night, you are lying horizontally and the vertebrae in your spine ease apart a little. Through the day, when you are awake, you are typically in a vertical position. In this position, as gravity pushes you to the ground, it squeezes your vertebrae together towards the ground, making you slightly shorter as the day goes on.