

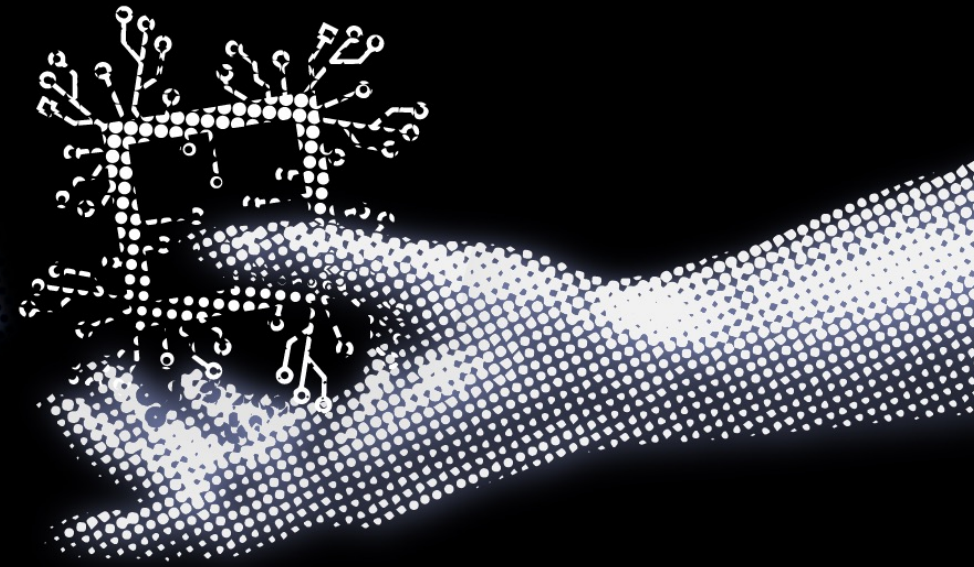
April 30th, 2024



evolvED

CATALYSTS CREATIVITY CONNECTION

GBC'S Annual
Teaching & Learning Conference



Pressure Points: Building connections to real world and to real people through science

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Land Acknowledgment

George Brown College is located on the traditional territory of the Mississaugas of the Credit First Nation and other Indigenous peoples who have lived here over time.

We are grateful to share this land as treaty people who learn, work and live in the community with each other.

[Learn more about our land acknowledgement](#)

Objectives

- Discuss pressure and its applications in real life.
- Explore the ways to engage with science and find connections with everyday life experiences.
- Engage in conversations with real people not machines.

elephant feet and high heels?



Question

Which one exerts more pressure on the ground:
A heel shoe or an elephant foot?

Pressure in Physics

Pressure Examples



Why is it important to study pressure?

Pressure (P)

Definition:

Pressure is amount of force per unit area.

$$P = F/A$$

- Atmospheric pressure is the weight of air resting on the earth's surface.
- Gravity pulls the atmosphere towards the ground, so the pressure is greater near the surface.

Units of Pressure

- Pascal ($\text{Pa} = \text{N}/\text{m}^2$)
- Pounds per square inch is used in some parts of the world.
- Meteorologists prefer to use an old unit called a millibar (mbar) and an instrument called a barometer.

Pressure and Human Body

Lungs and Respiratory System

- We take thousands of breaths a day, thanks to the respiratory system.

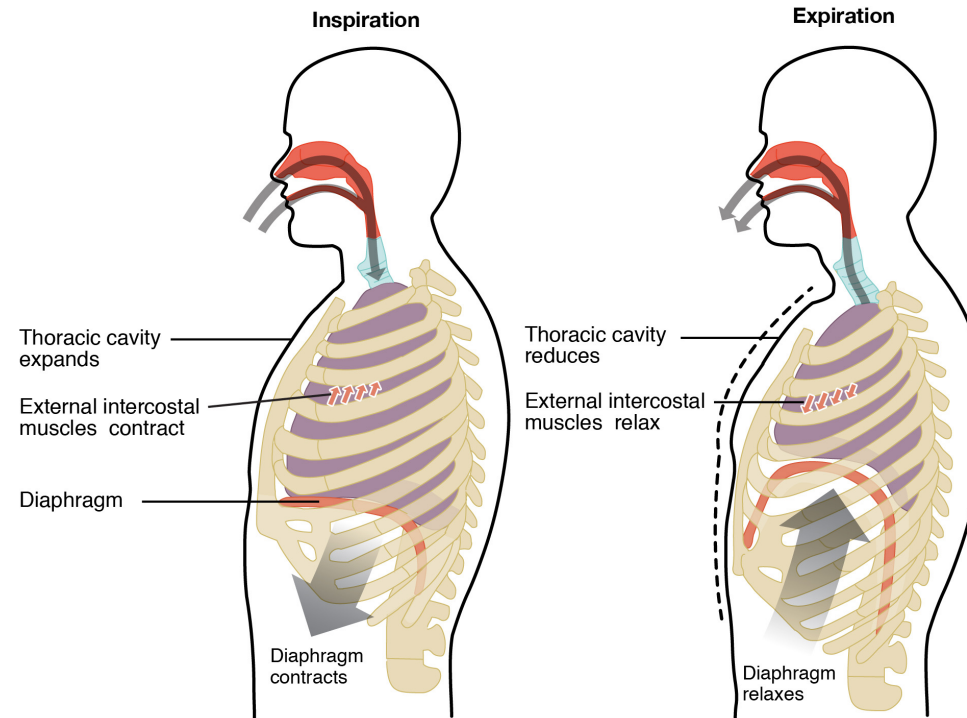
This is the sign of life!

- Deep breathing exercises can promote well-being and release stress and anxiety.

Let's all make a deep breath right now!

Breath In and Breath Out

- Inspiration (inhalation)
- Expiration (exhalation)



Experiment

Atmospheric Pressure Cups

- To Do
 - Align two rubber cups along their rim.
 - Push two rubber cups together.
 - Try to pull them apart.



Conference Schedule

Description	Time
Registration/Coffee/Breakfast	8:00 am - 9:00 am
Opening Remarks	9:00 am - 9:20 am
Keynote 1 - Dr. Rhonda McEwen	9:20 am - 10:30 am
Session Block 1	10:40 am - 11:40 am
Session Block 2 - 20 min	11:50 am - 12:10 pm
Lunch	12:10 pm - 1:00 pm
Keynote 2 - Dr. Ioana Literat	1:00 pm - 2:00 pm
Session Block 3	2:10 pm - 3:10 pm
Concluding Ceremonies	3:10pm - 4:00 pm