IT GIRLS
SPRING KICK OFF

Berkeley Lake Elementary School

IT Girls

WELCOME

WHY YOU ARE HERE

WHAT IS THIS PROJECT

- Hello! My name is Mrs. Seymour
  - Ask questions
  - Use your Hand Clacker
    - If you want to ask a question, unmute your microphone and use your hand clacker to let me know you have a question.
    - If you like something, unmute your microphone and use your hand clacker to clap
    - If you think something is funny, unmute your microphone and use your hand clacker to clap

Rules?

There are no real rules, we just want you to have fun!

IT Girls Foundation

INSPIRING GIRLS TO PURSUE THEIR PASSIONS

INTRODUCTION TO IT GIRLS ~ Mr. Grant Shih

- Working with Elementary Schools since 2015
- Our Story and Mission

WIT

EMPOWERING GIRLS & WOMEN

TO EXCEL IN STEAM

EST 1992

ABOUT WOMEN IN TECHNOLOGY

Women In Technology (WIT) empowers girls and women to excel in science, technology, engineering, the arts, and math (STEAM) from the classroom to the boardroom. We do this by providing female students in middle school, high school, and college with education, exposure, and experience. By sharing the stories of successful professionals across the STEAM fields, we encourage all generations of girls and women to write their future.

Our team of more than 300 volunteers delivers professional development and networking opportunities to our more than 3,000 professionals and programs at no charge to more than 1,500 students.

WIT is committed to making Georgia the state with the highest percentage of women in the STEAM workforce by providing opportunities that champion women throughout their education and career.

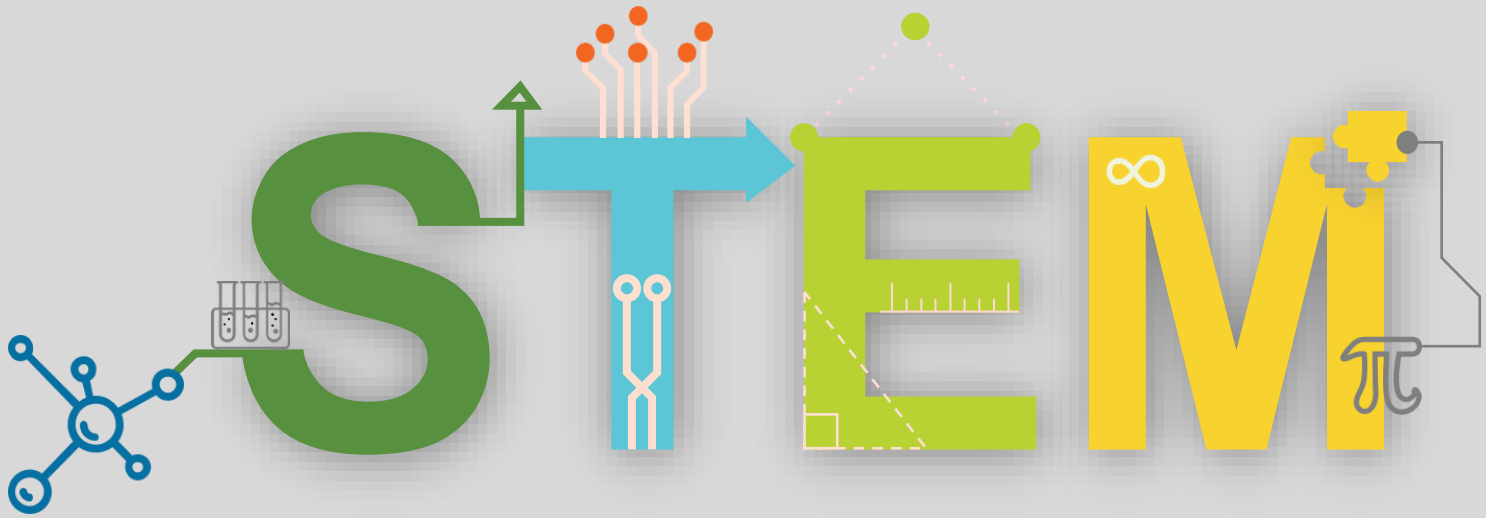
Sponsored by:

Women in Technology

Penny Collins

President & CEO

WHAT IS THIS PROGRAM ABOUT?



IT Girls is a fun way for you to learn about Science, Technology, Engineering and Math while building skills for your future.

You will be introduced to STEM concepts while preparing to build a robot that actually works!

Joke!

What is an Astronauts favorite part of a computer?

The Space Bar!

CONCEPTS FOR OUR PROJECTS

These scientific ideas will drive our robot!

Force

A push or a pull that can cause the motion of an object to change. It has two important properties: strength and direction.

Balanced Forces

When two forces are of equal strength and there is no movement.

Unbalanced Forces

When one force is stronger than the other the result is motion.

Forces are all around us

Forces are needed to lift, turn, move, open, close, push, pull, and so on. When you throw a ball, you are using force to make the ball move through the air.

Force has strength and direction.

When a soccer player kicks the ball to another player, they are using a certain amount of strength to push the ball in a certain direction. Forces always have strength and direction.

Unbalanced forces can cause an object to change it's direction

Unbalanced force[illegible] motion of an object. This happens in 2 ways. If an object is at rest and an unbalanced force pushes or pulls the object it will move. Unbalanced forces can also change the speed or direction of an object that is already in motion.

Balanced Forces do not cause a change in motion.

When two forces are the same strength but act in an opposite direction, they are balanced forces.

Identify some more forces
Balanced or Unbalanced?

Is a student sitting in a chair an example of balanced or unbalanced forces?

Balanced forces. Gravity is pulling the student down and the chair is pushing the student up with equal force, resulting in no motion.

If you throw a ball in the air, is it at rest or in motion?

The ball is in motion. The forces acting on the ball are **unbalanced** (Gravity is pulling it down).

Identify some more forces
Balanced or Unbalanced?

Balanced
or
Unbalanced?

Balanced
or
Unbalanced?

Balanced
or
Unbalanced?

DRAWBOT

What are the next few weeks about!

PICK UP YOUR PROJECT KIT FROM YOUR TEACHER

YOU WILL NEED A FLAT SURFACE TO WORK ON FOR THE NEXT SESSION

YOU WILL NEED A PAIR OF SCISSORS

YOU WILL NEED A PENCIL

WHAT TO EXPECT NEXT WEEK!

- Recap of our concepts
- More fun!