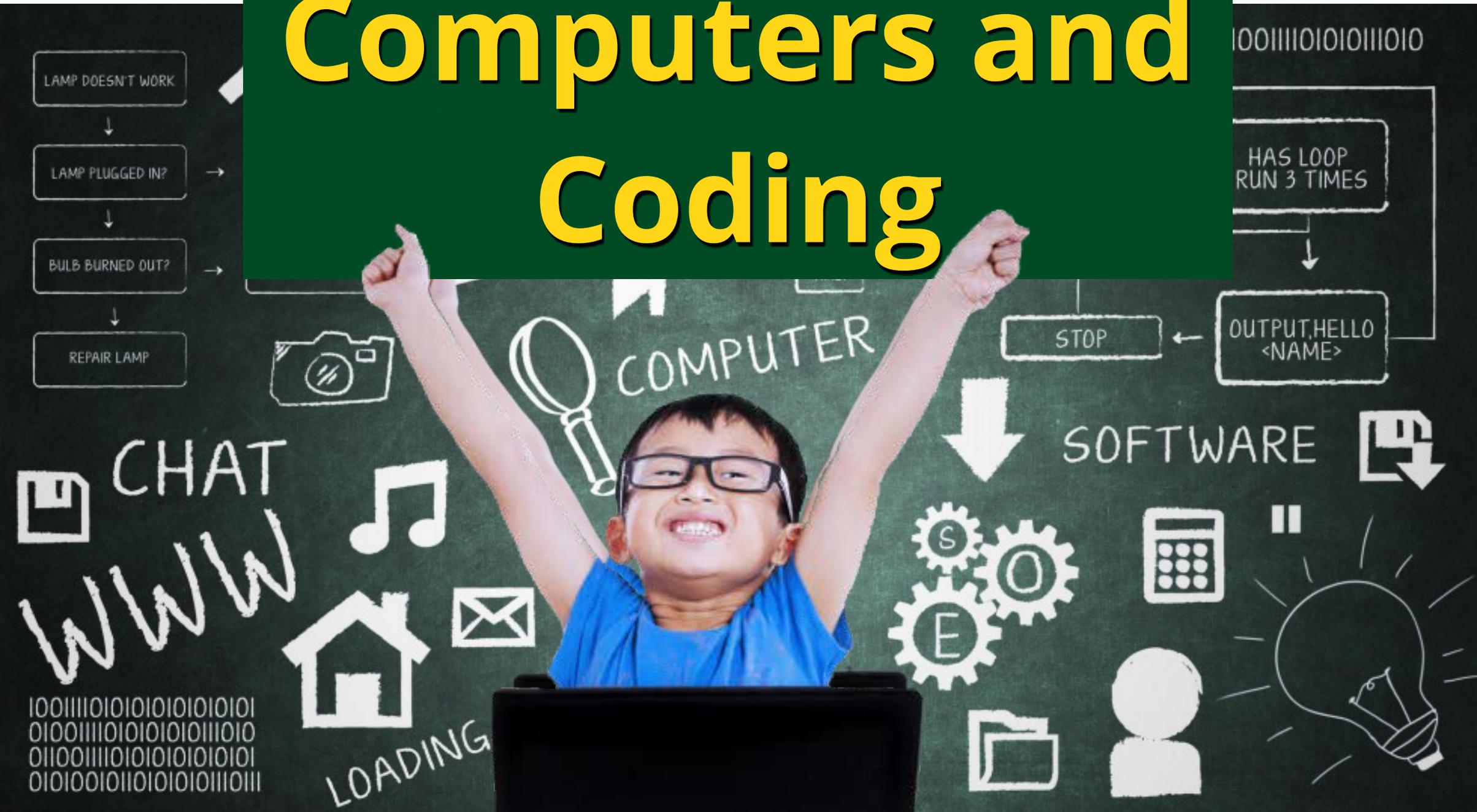


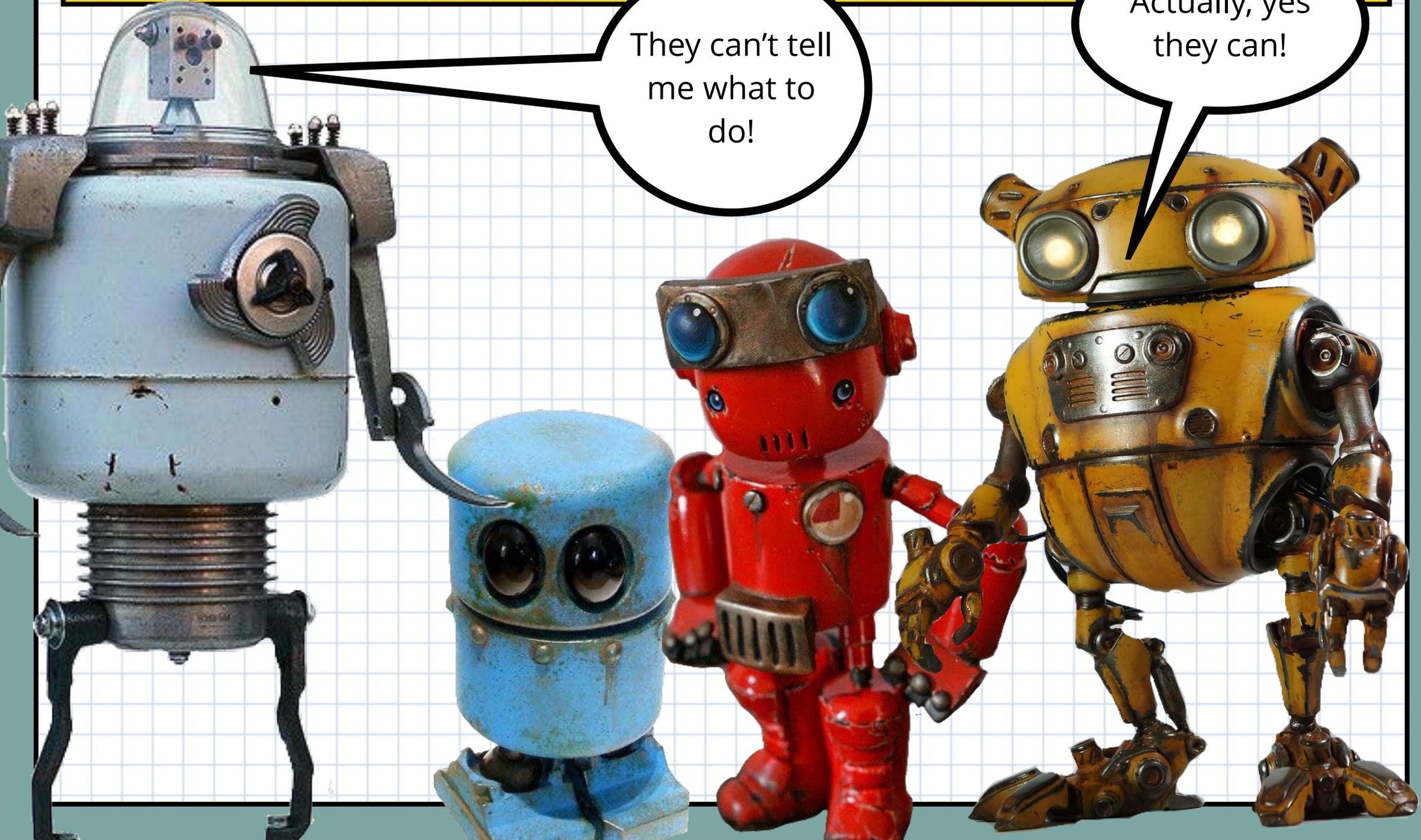
Computers and Coding

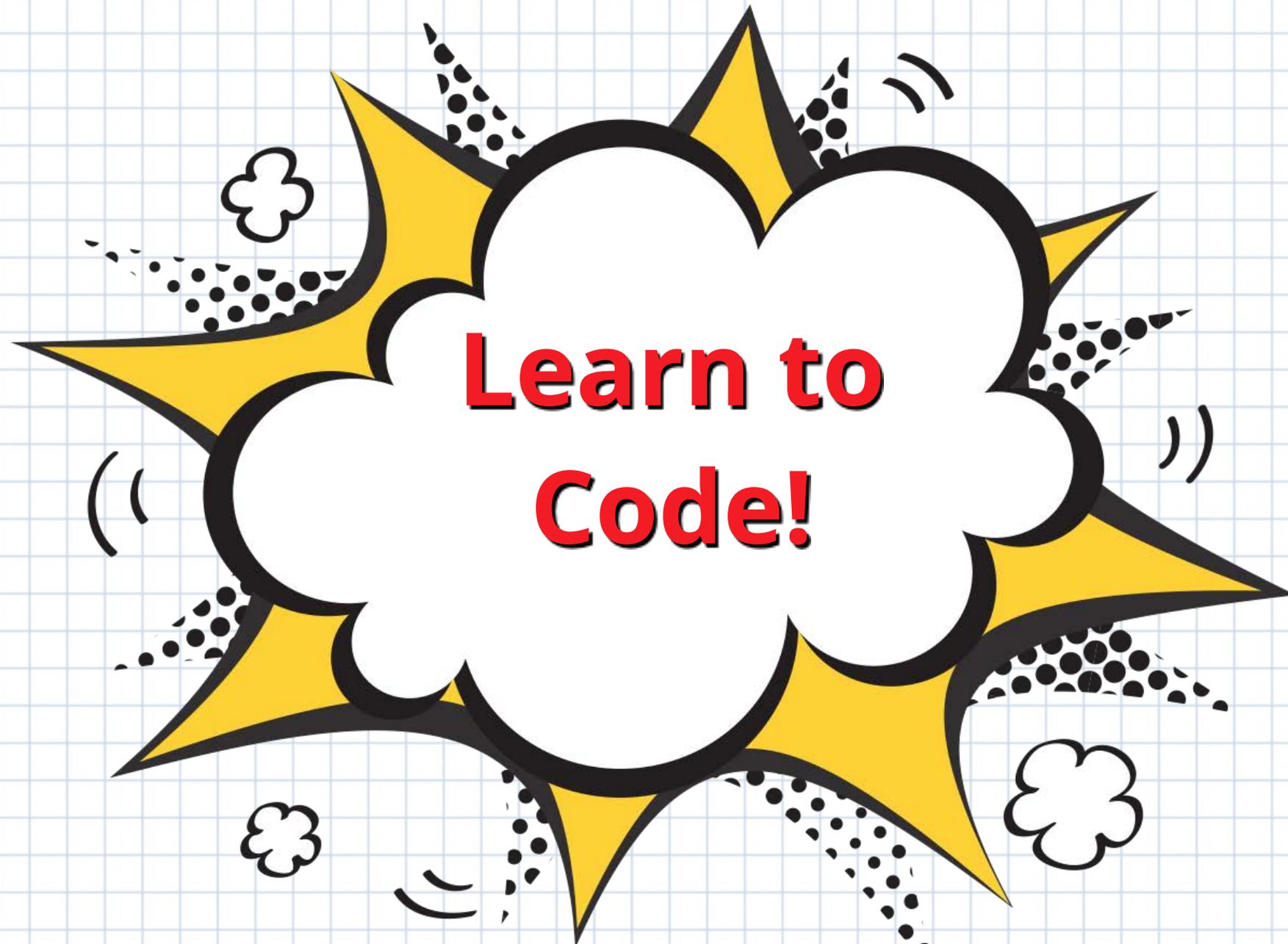


Have you ever wondered how to control your technology?

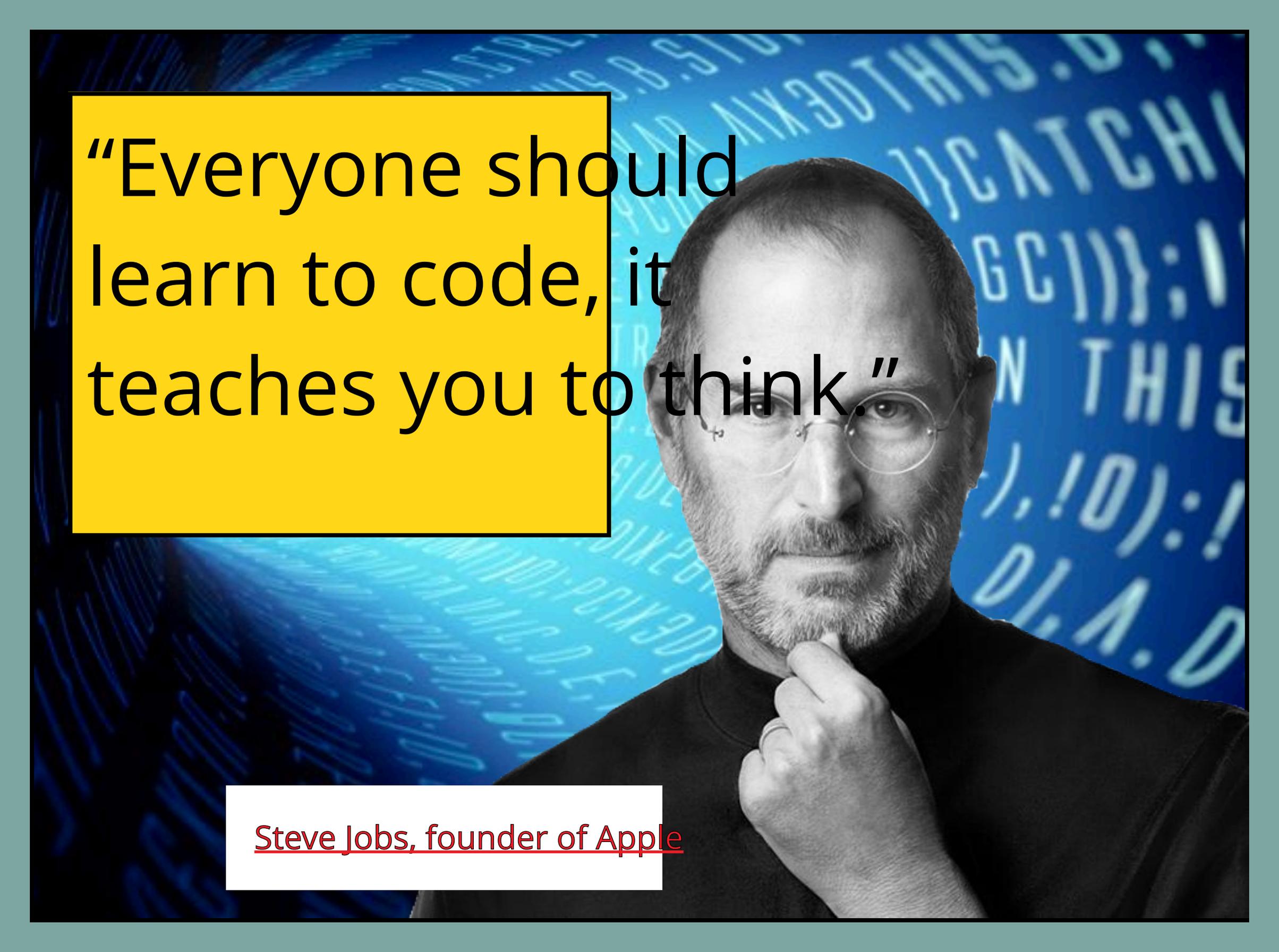
They can't tell me what to do!

Actually, yes they can!





By learning to code, you start to understand the digital world around you.

A portrait of Steve Jobs, founder of Apple, is centered in the image. He is wearing his signature black turtleneck and round glasses, with his hand resting on his chin in a thoughtful pose. The background is a vibrant blue with a pattern of white, glowing computer code characters like 'CATCH', 'GC}};', 'N THIS', and '),!D):!', creating a digital atmosphere. On the left side, a yellow rectangular box with a black border contains a quote in black text. At the bottom center, a white rectangular box with a black border contains the name 'Steve Jobs, founder of Apple' in red text.

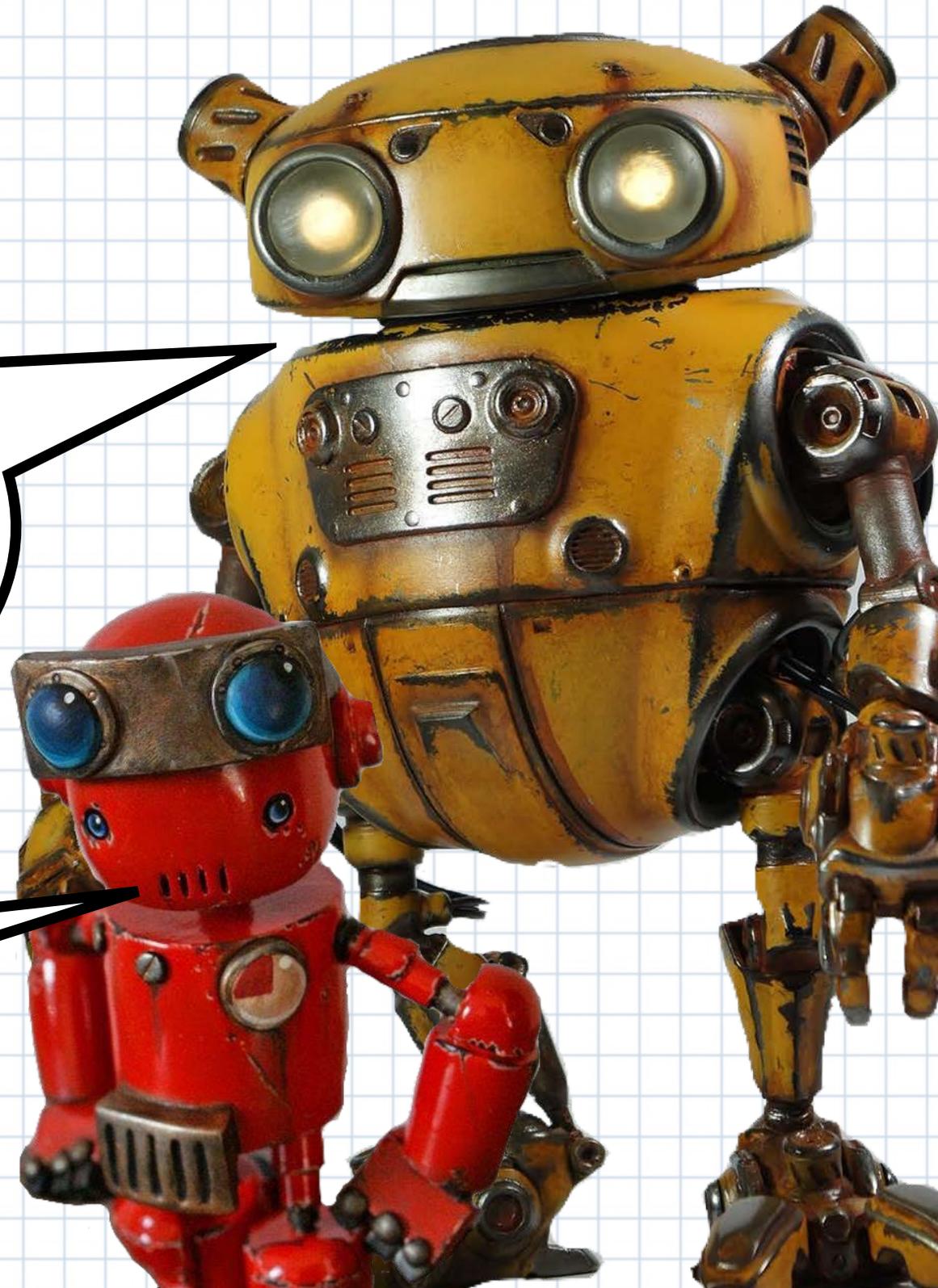
“Everyone should learn to code, it teaches you to think.”

Steve Jobs, founder of Apple

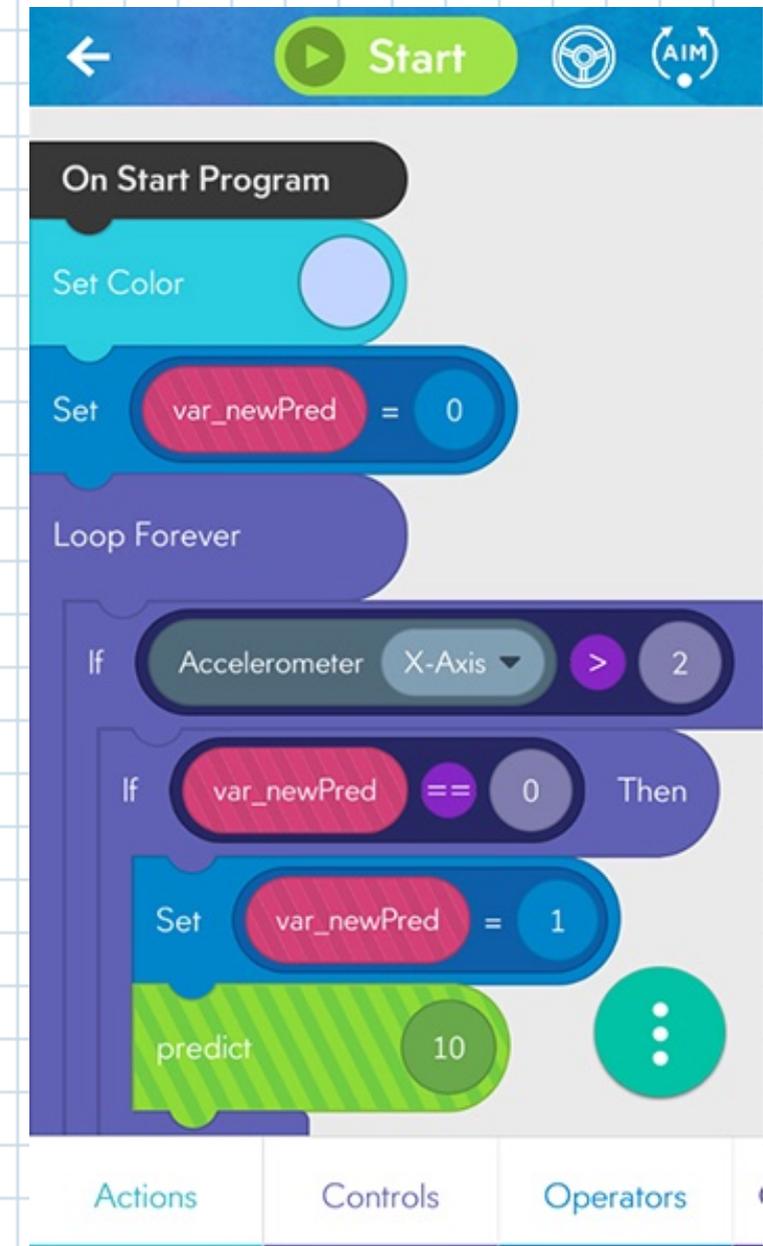
Big ideas:

Today we will begin to develop Our skills with

And while we're at it,
Learn a little bit
about coding and



Today you will use:



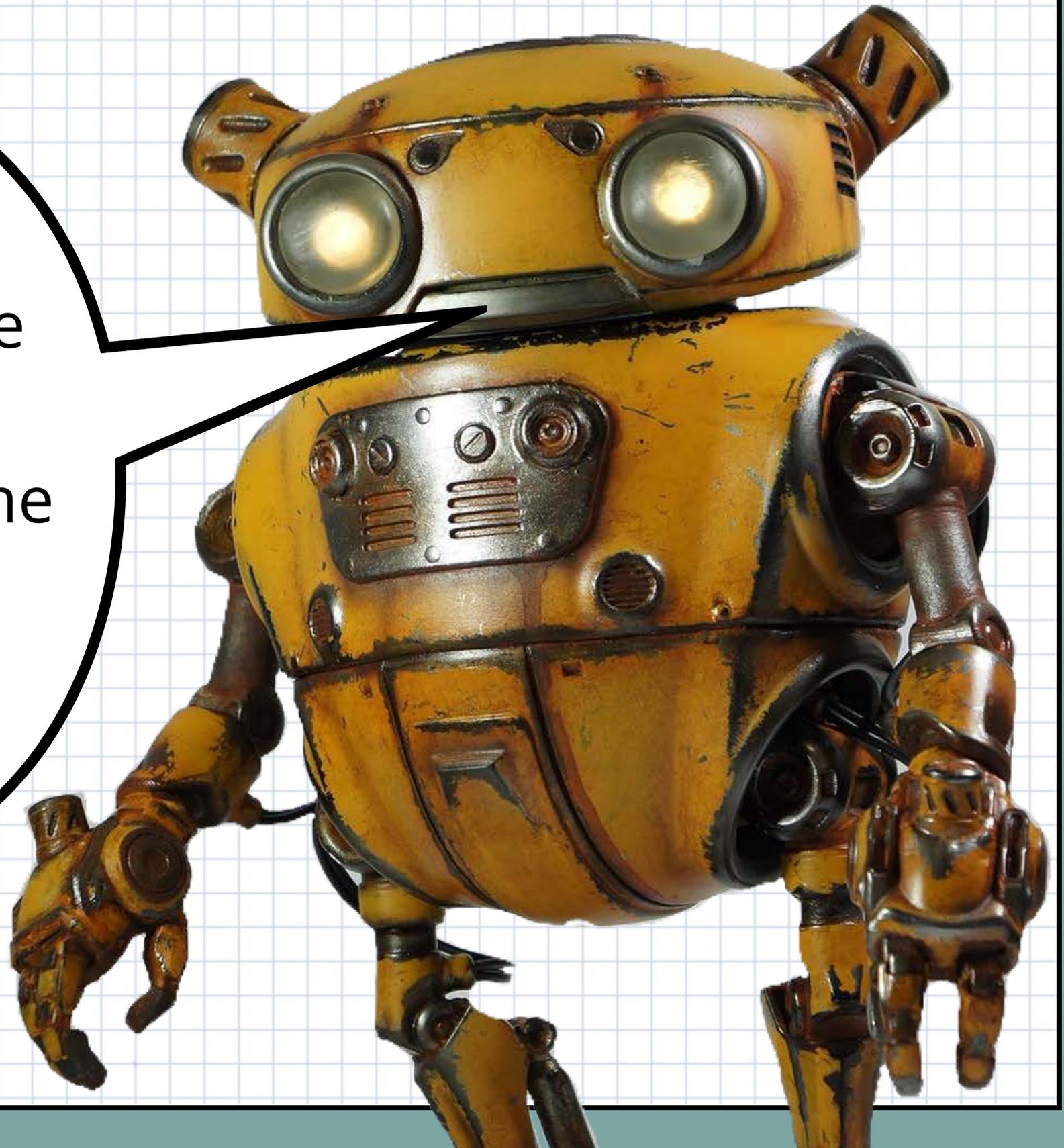
Today you will:

- learn how to program a Sphero three different ways

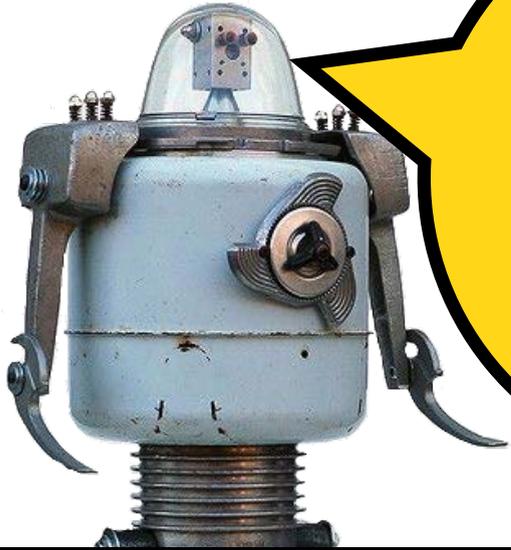
- Program the Sphero To act as the horse of a Roman Chariot

- Build a “driverless” chariot/car and program it to run on Roman roads and race track

But first, we
need
to learn some
important



Code



The language
Programmers
create To tell a

Command



An instruction for the
computer. Many
commands put

Algorithm



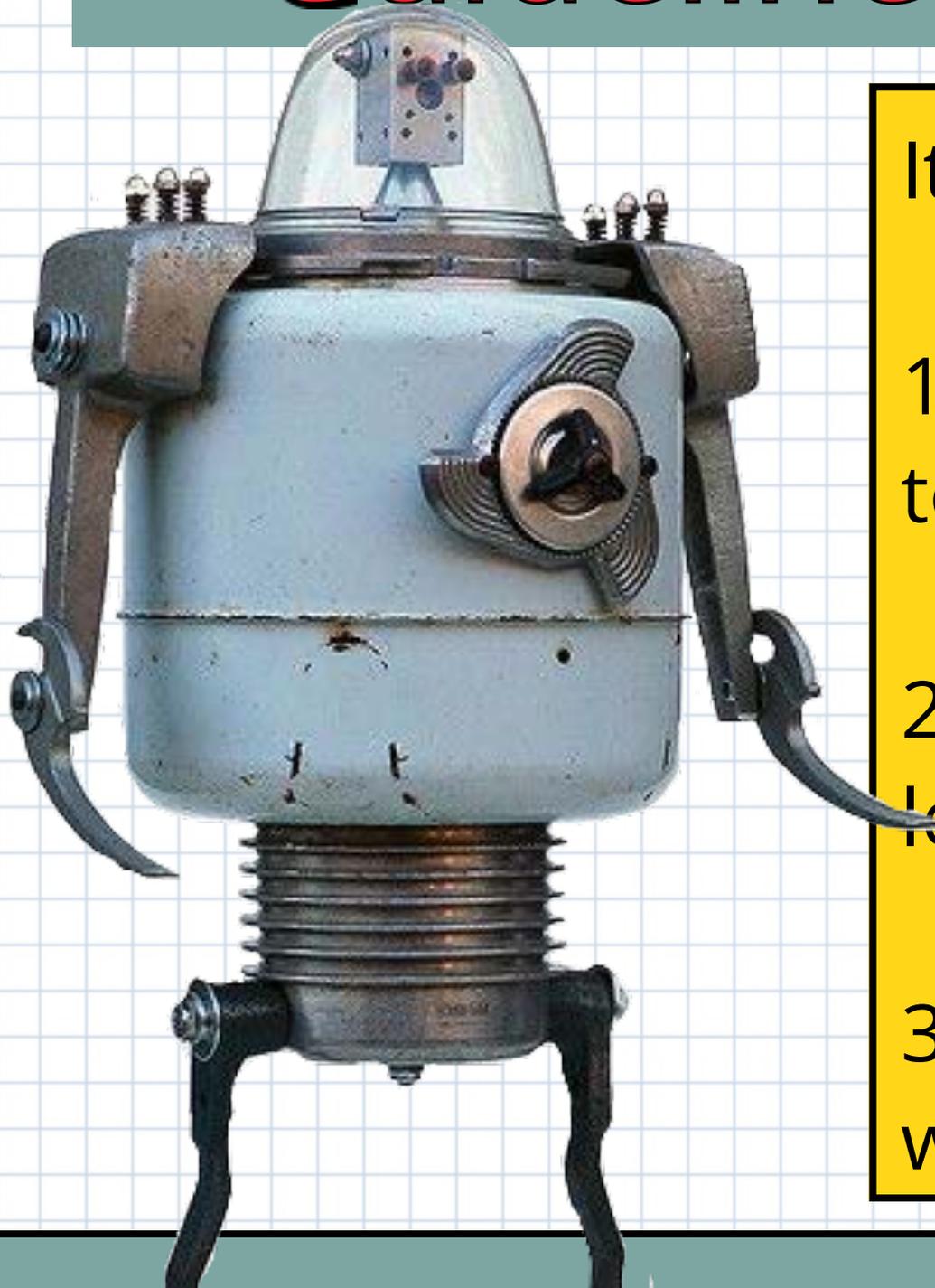
A list of steps
Used to finish
A task.

Program



An algorithm that
has been Coded
into

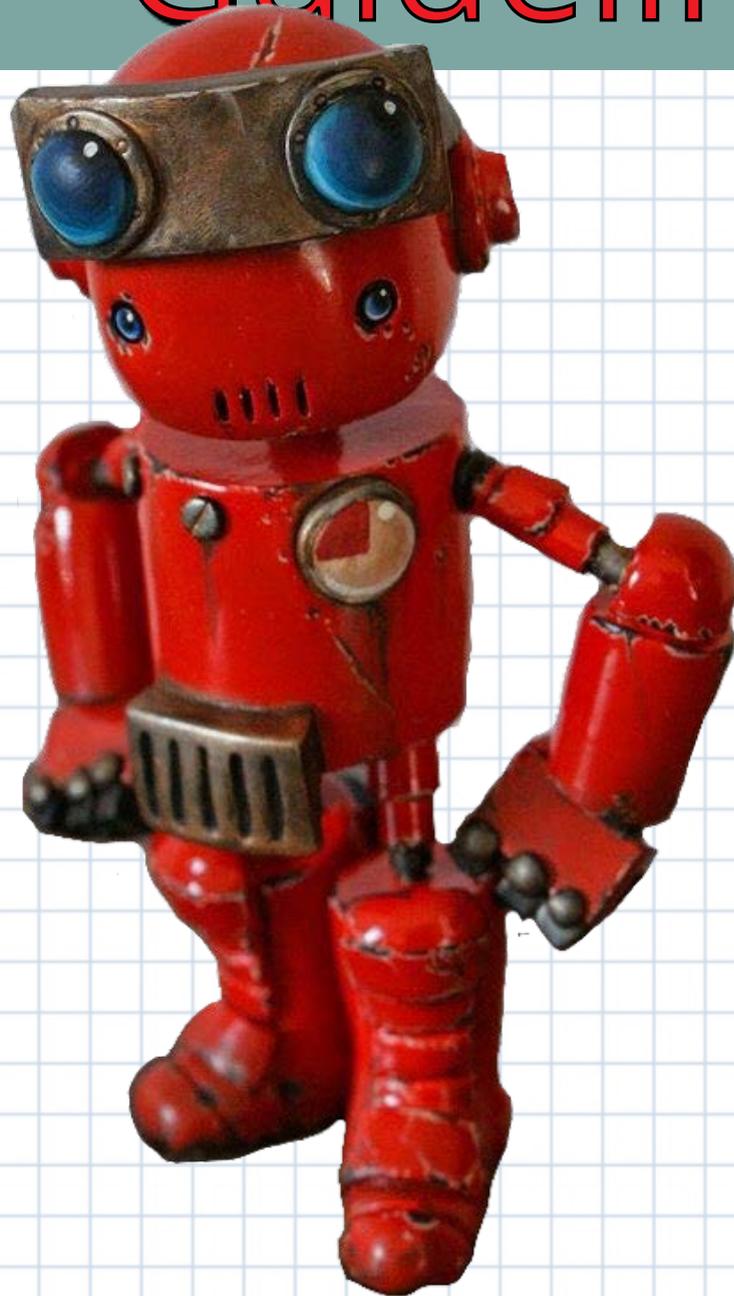
Guidelines for today:



It is our job:

- 1) To do everything we can to keep you safe
- 2) To help you do your best learning
- 3) To help make this a place where everyone can learn

Guidelines for today:

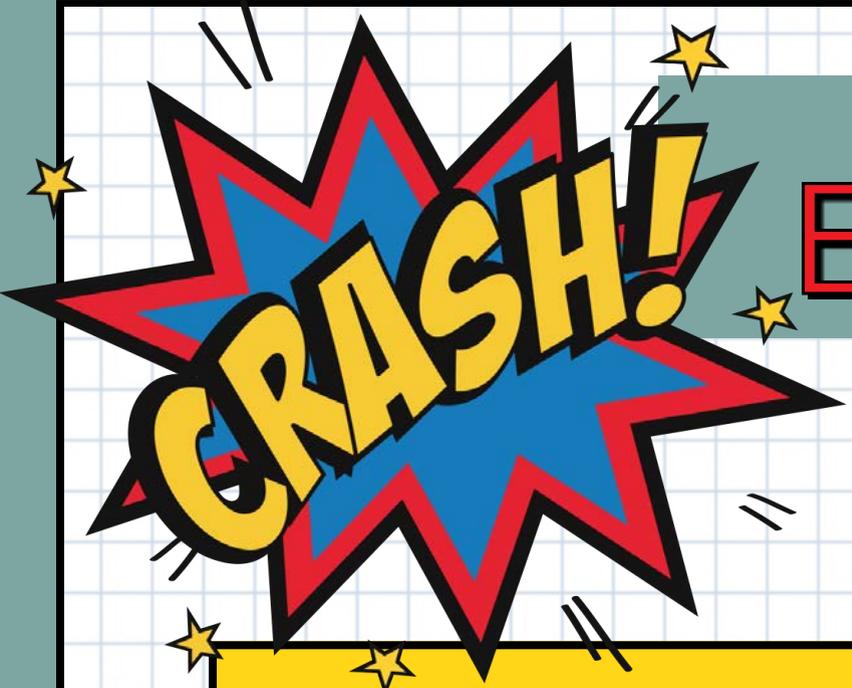


It is your job:

1) To be safe

2) To do everything you can to be a learner

3) To help other people do their own learning



Expect to F. A. I. L.

F - First

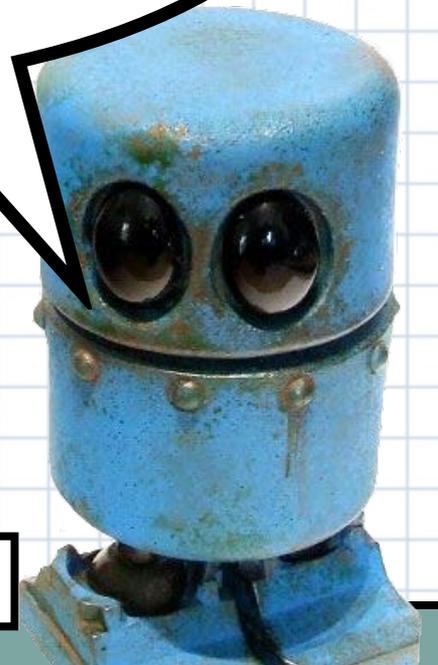
A - Attempt

I - In

L - Learning

That's okay!

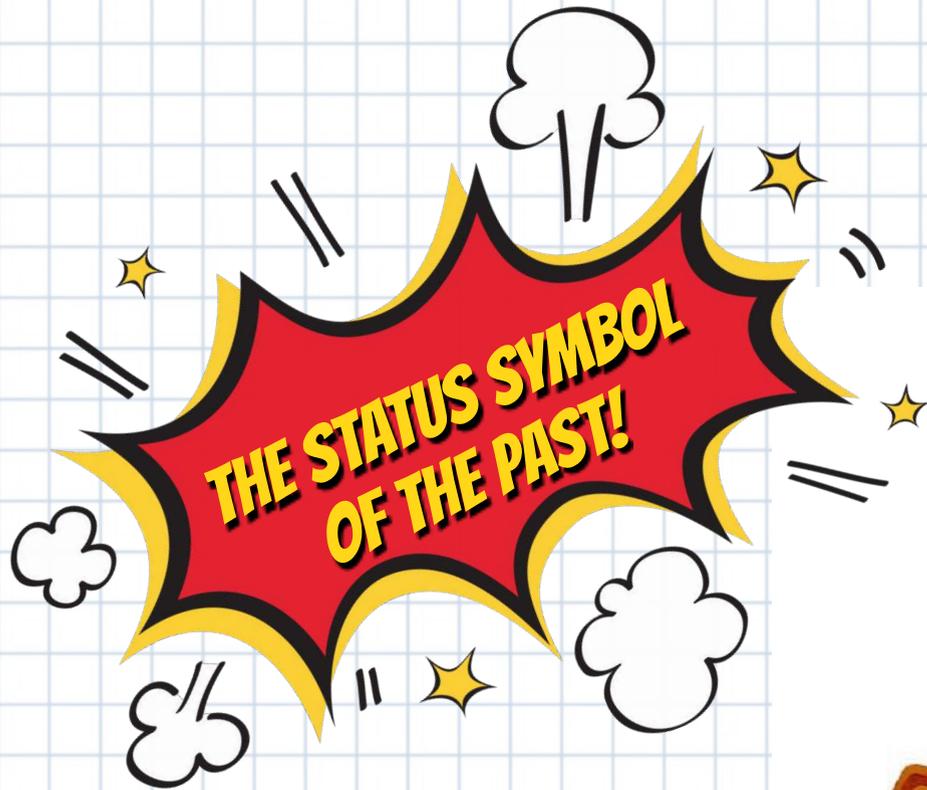
"Your brilliant first flop
was a raging Success!"



Quote from: Rosie Revere Engineer by Andrea Beaty

Ancient Transportation

THE CHARIOT



Egyptian War Chariot 1279–1213 BCE

The chariot was a light vehicle, usually on two wheels, drawn by one or more horses, often carrying two standing persons, a driver and a fighter using bow-and-arrow or javelins.

THE CHARIOT



Assyrian chariot, 7th century, BCE

The chariot became a moving platform from which soldiers could shoot at enemies. Arrows and javelins were the main weapons used by the fighter on board, while a second person drove the chariot.



The Battle of Kadesh, the largest chariot battle in history, Egyptian Empire vs Hittite Empire, 1274 BCE

THE CHARIOT

Everywhere, in Europe, the Middle East, India and China, all rulers, from petty chiefs to great pharaohs, took the chariot as their master weapon. They started depicting themselves riding chariots, waging wars in chariots, including chariots and horses in their tombs as symbols of power, and so on.

The chariot was such a status symbol that when the owner died, the chariot was buried with him, live horses and all!

THE CHARIOT

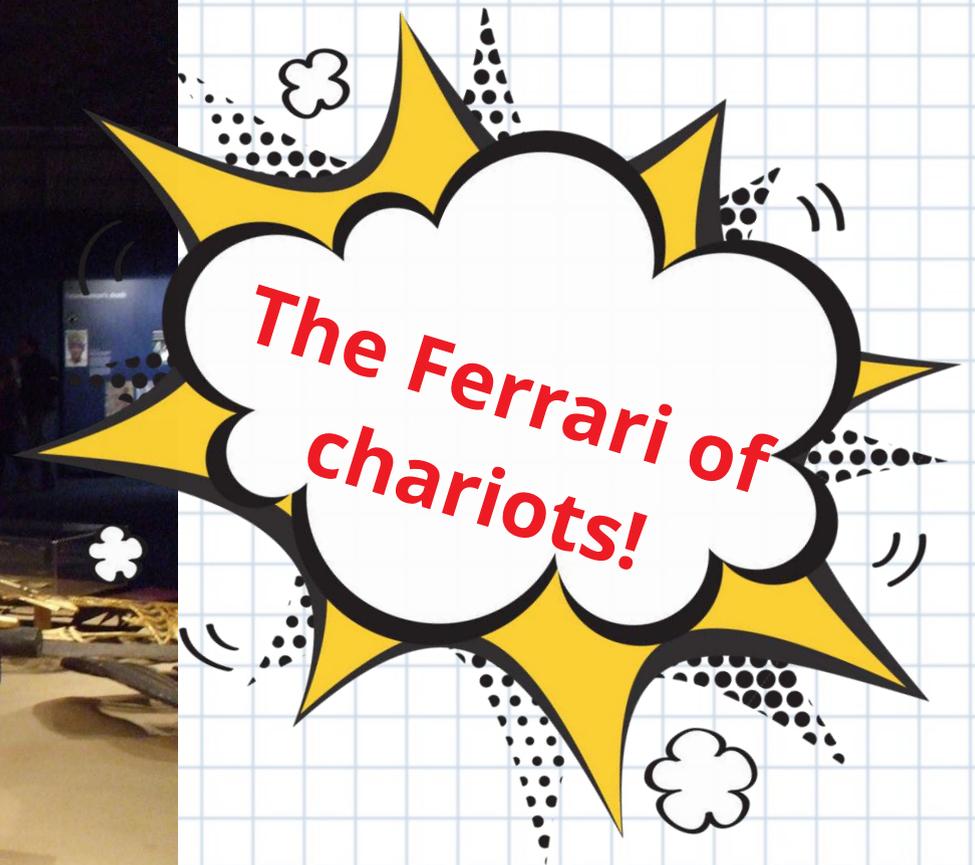


Watering the horses: A staff member sprays water to maintain the humidity of one of the horse and chariot pits unearthed in Luoyang, China. The main pit has five chariots and 12 horses buried almost 3,000 years ago.

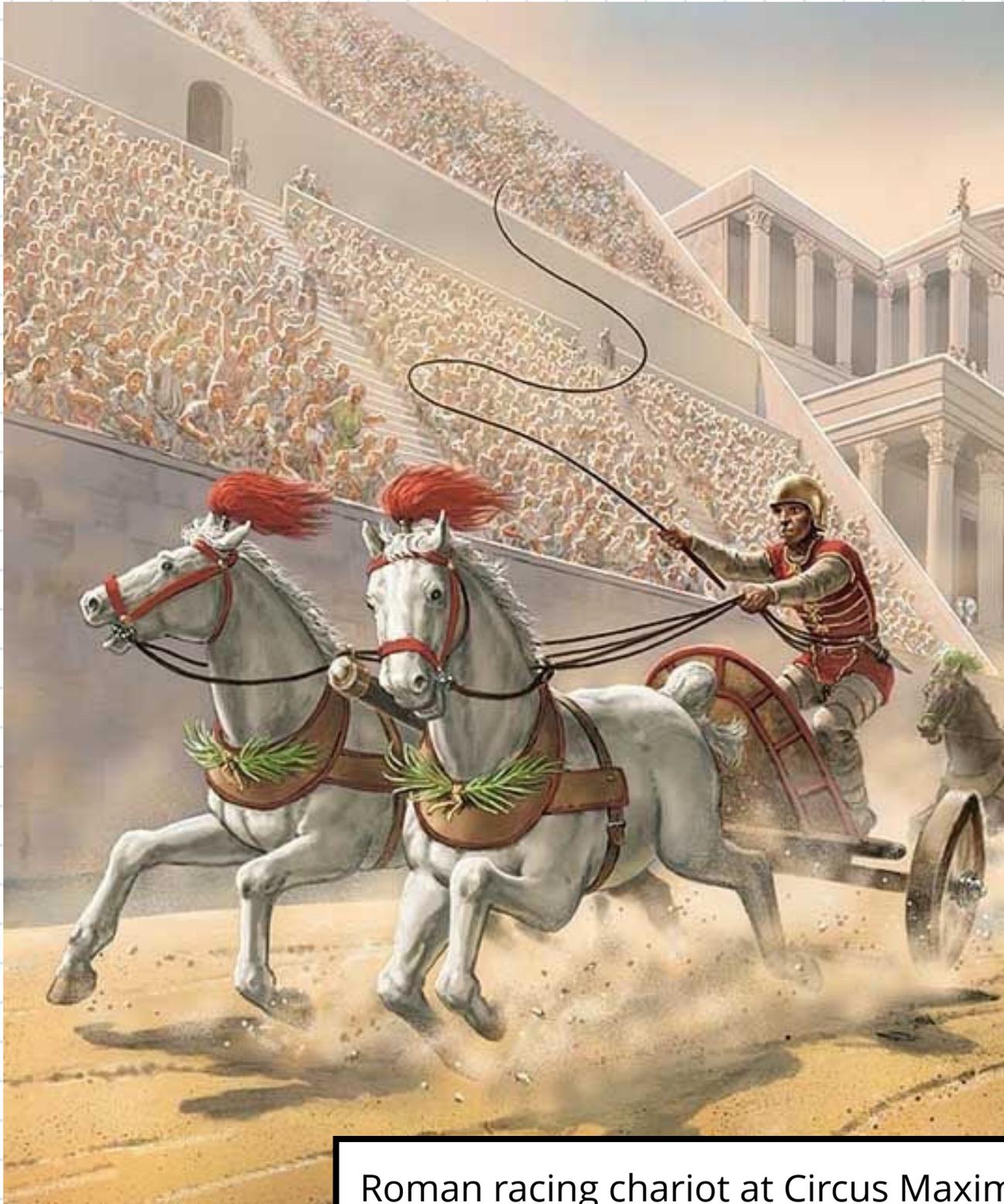
In King Tutankhamun's tomb, numerous chariots were found stacked up against the wall.



The boy king's collection consisted of two large ceremonial chariots, a smaller highly decorated one and three others that were lighter and made for daily use. The fact that the vehicles were dismantled helped their preservation.



King Tut's chariot, 1332-1323 BCE



THE CHARIOT

The chariot was a supreme military weapon but was also used for hunting purposes and in sporting contests such as the Olympic Games and in the Roman Circus Maximus. It was also used for travel.

Roman racing chariot at Circus Maximus, 6th Century BCE

In ancient civilizations, road travel was either on foot or in springless carriages, carts or chariots that bounced and bumped over every cobblestone. Egyptians, Hittites, Aryans, Shang Dynasty Chinese and Assyrians had chariots long before the Greeks and Romans did.



A Roman traveling carriage.

Roadways were the lifeblood of Ancient Rome. Over the course of 700 years, the Romans built more than 55,000 miles of paved highways throughout Europe—enough to encircle the globe. These engineering marvels ensured the swift movement of goods, soldiers and information across the Empire.



Transportation of the Future

THE DRIVERLESS CAR

Chariots were innovative in ancient civilizations. Today, the latest in transportation technology is the driverless car.

A sleek, futuristic, silver and blue driverless car, the Volkswagen Sedric concept, is shown from a rear three-quarter view. The car has a rounded, boxy design with large windows and a prominent number '42' on the rear side. It is parked on a paved surface in front of a modern building with large windows and a tree.

Volkswagen's Sedric (for "self-driving car") concept.

How does a driverless car work?

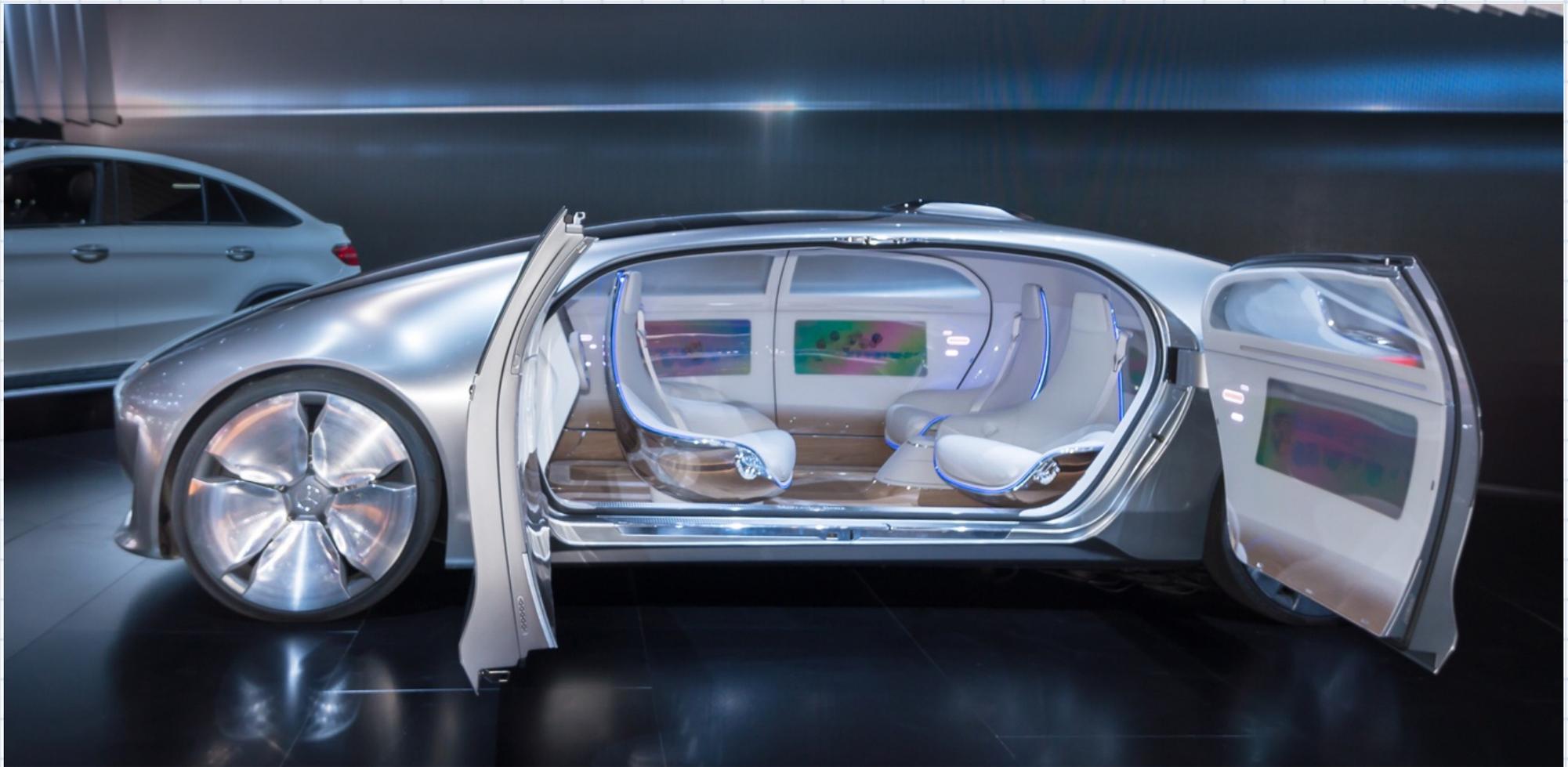
From greatly reducing the number of vehicle accidents, to improving greenhouse gas emissions, the driverless revolution has begun!

Tap photo for link to video



Can you drive by yourself then?

There's a good chance that kids born today will never get to drive a car! Robots, like Spheros, will drive you where you need to go.



Humans are great innovators

From the invention of the wheel to the chariot, the dugout to steamship, propeller to rocket, technology and innovation, along with creative thinking, will always be the way of the future!

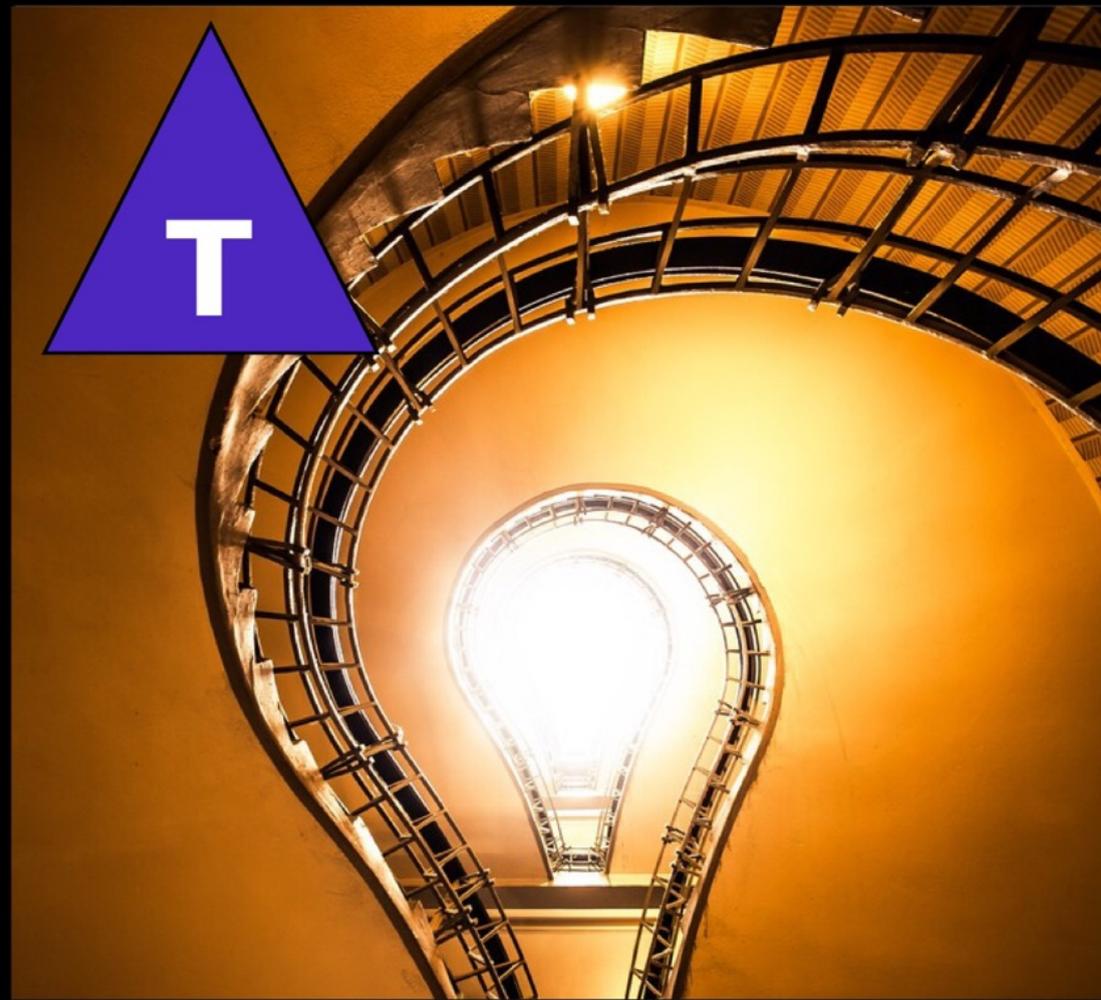




I can...

- actively listen.
- recognize different points of view.
- present information to an audience.
- collaborate to achieve group goals.
- reflect on my learning.

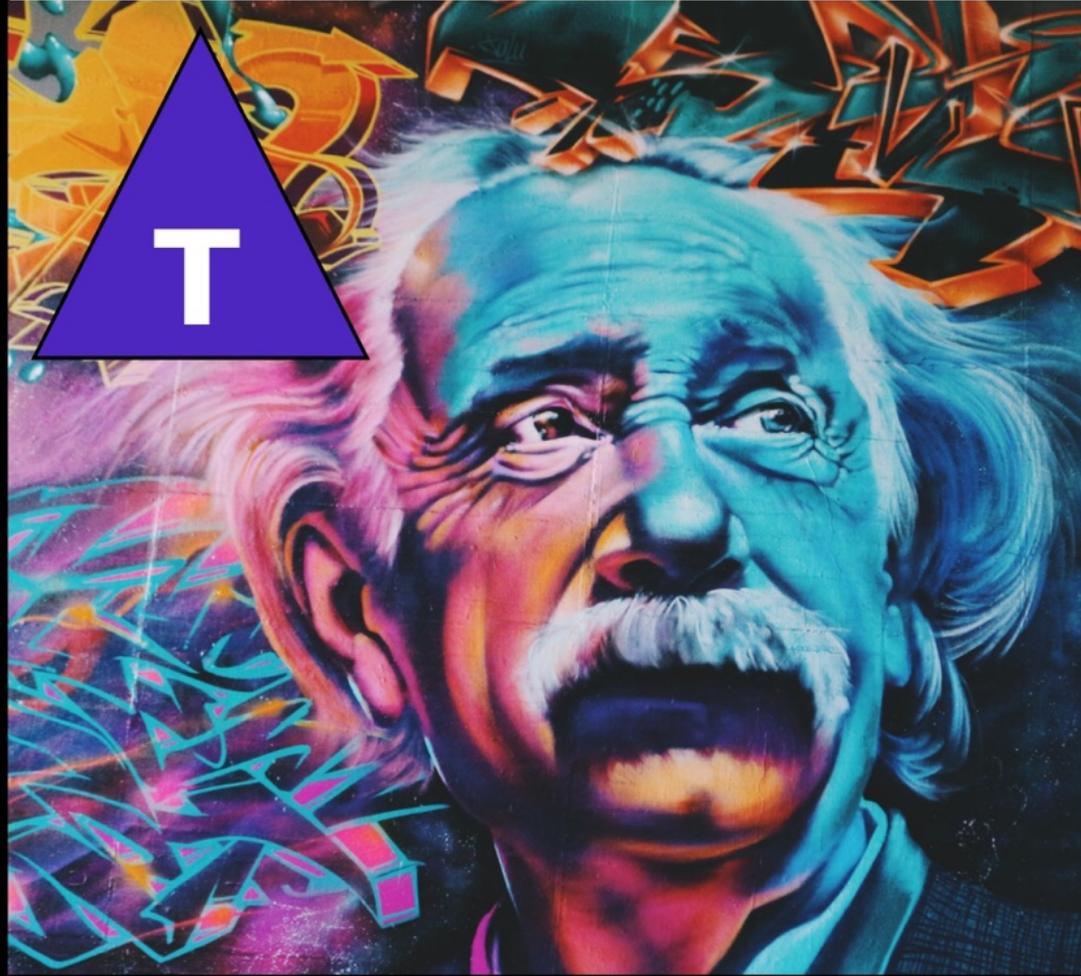
COMMUNICATION



I can...

- generate new ideas through explorations and interactions.
- persevere when developing valuable ideas.

CREATIVE THINKING



I can...

- question and investigate situations and ideas.
- consider perspectives and ideas.
- analyze and synthesize ideas.

CRITICAL THINKING



I can...

- set goals and use strategies to accomplish them.
- advocate for myself and my ideas.
- take responsibility for my choices and actions.
- make decisions and take steps to support my well-being.

PERSONAL AWARENESS & RESPONSIBILITY