



**STEM Summer Camp**

**July 8 – July 26**

Chess | <CODING> | littleBits | Sports | SCIENCE | ART

# STEAMchess STEM Summer Camp

**July 8<sup>th</sup> – July 26<sup>th</sup>**

Week 1: July 8 – 12 | Week 2: July 15 – 19 | Week 3: July 22 – 26

SCIENCE  
OF  
BUILDING



**Chess**  
All Levels



littleBits™

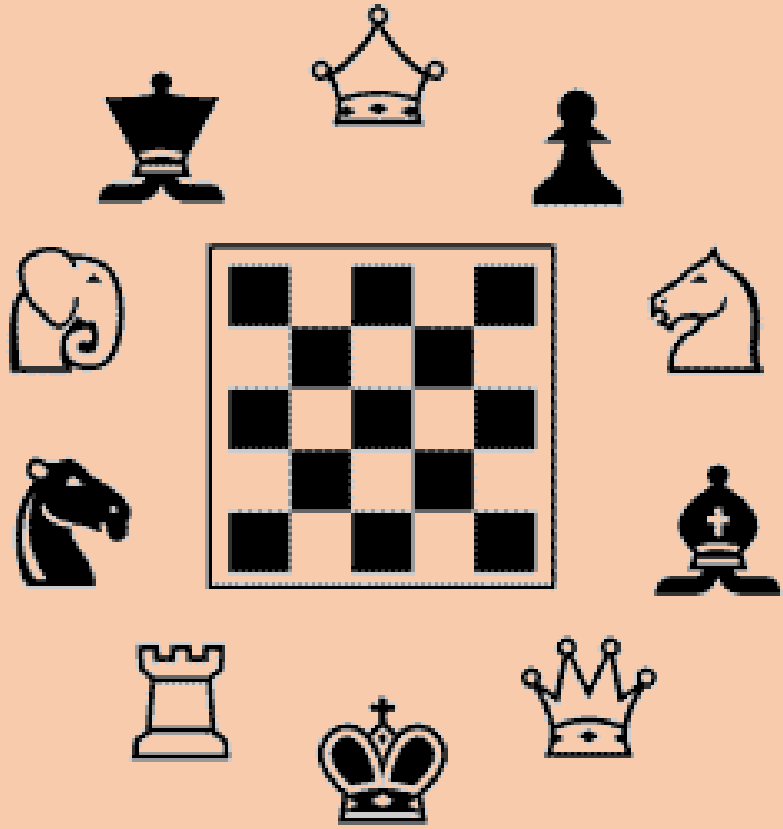
python  
<CODING>



*Outdoor Sports &  
Water Fun!*

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# Chess





# STEAMchess Camps



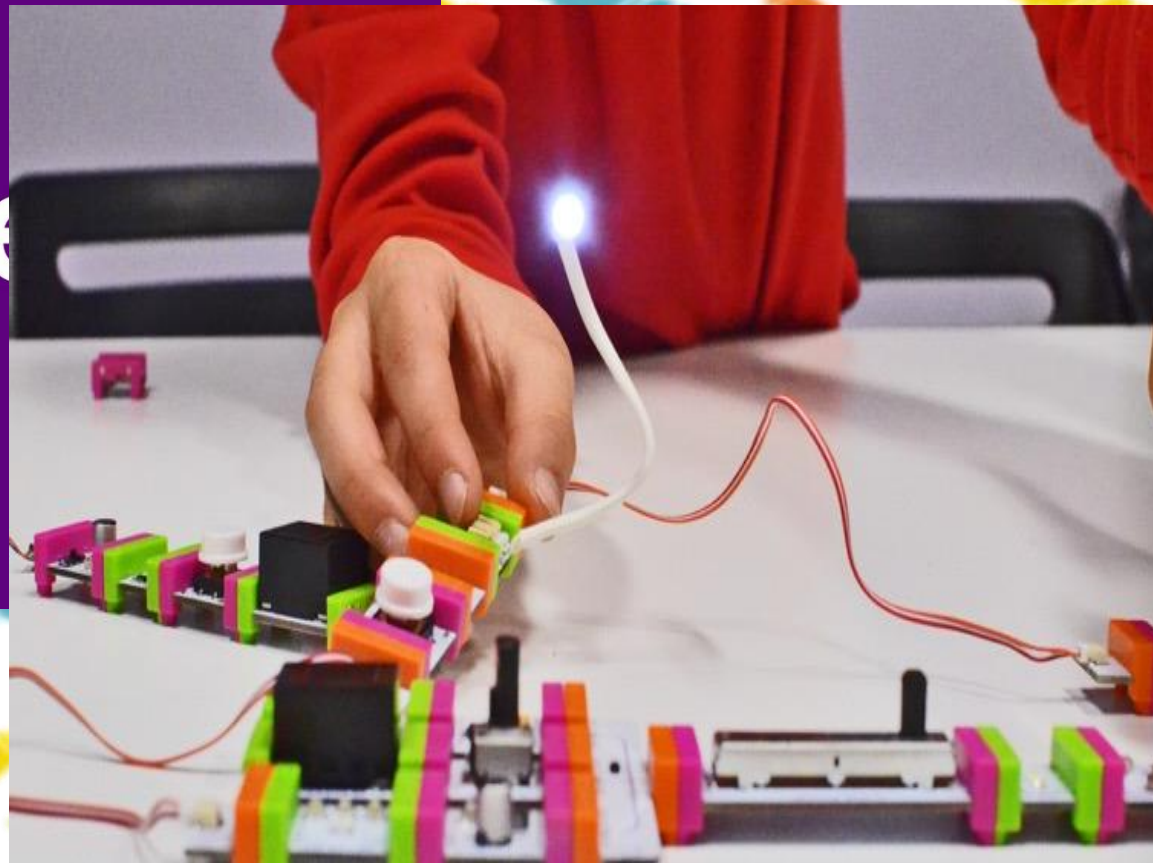
STEAMchess SUMMER CAMP



# littleBits

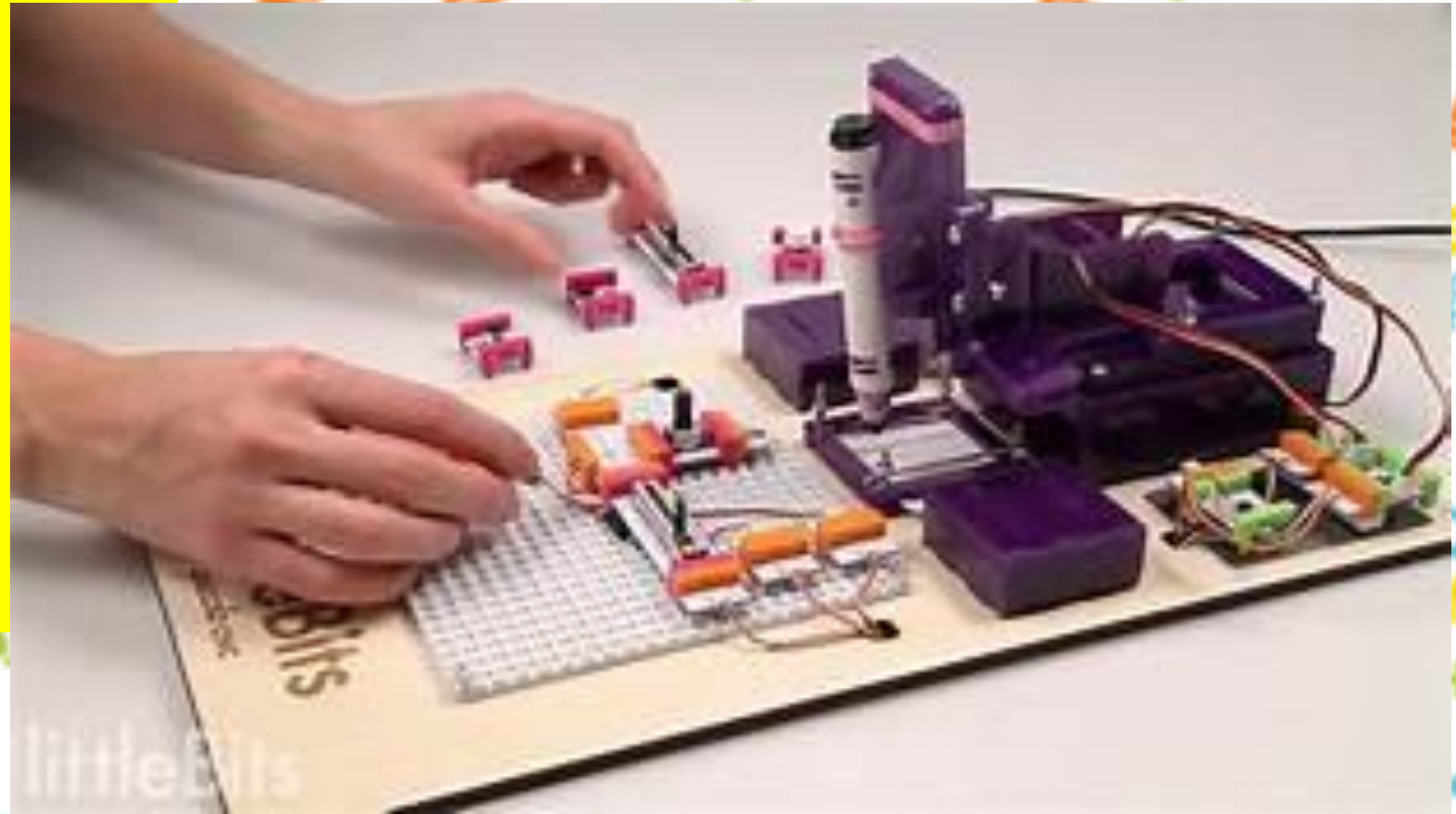
- Coding
- Electronics
- Engineering
- Invent

little



# littleBits

- Create
- Design
- Experiment





**STEM Summer Camp**

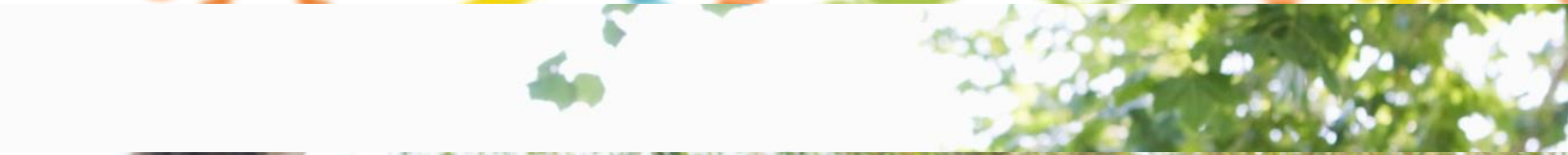
**July 8 – July 26**



# Outdoor Sports & Water Fun







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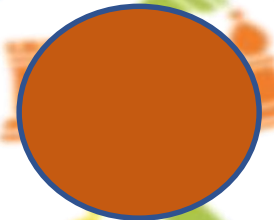
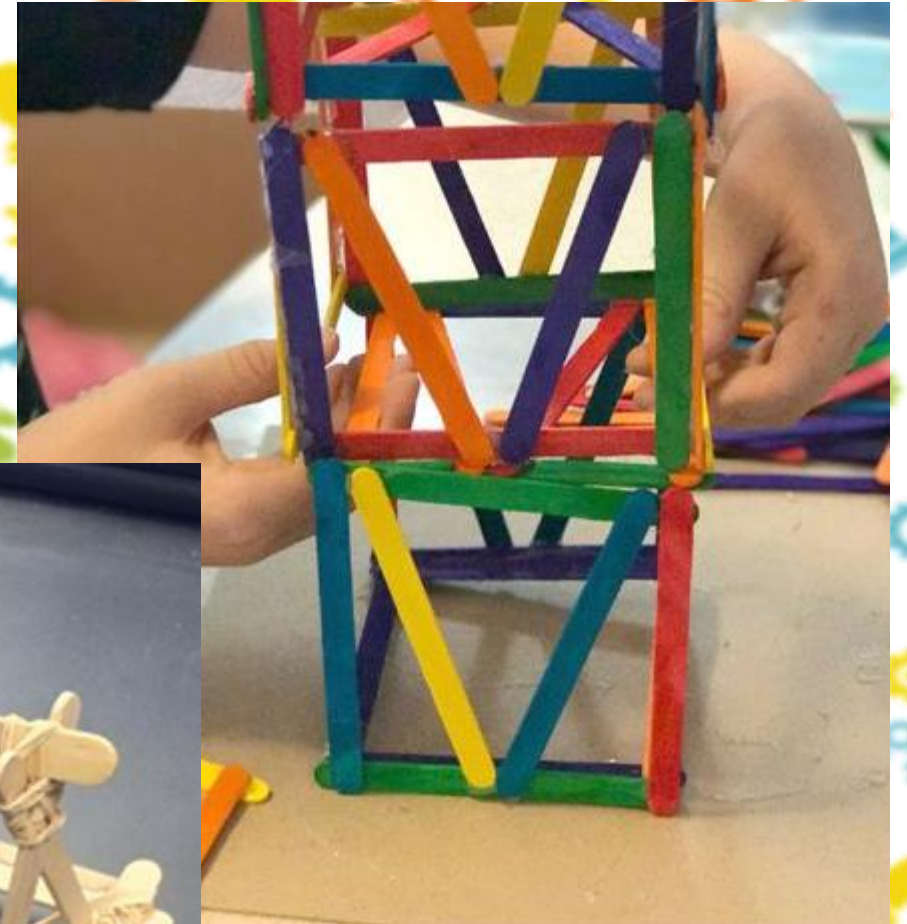
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# Science of Building

- Engineering
- Bridges
- Catapults
- Sky Scrapers
- BIG Structures...



# Science of Building

- Kites
- Windmills
- Catapults
- Skyscrapers
- Bridges

**BIG structures!**



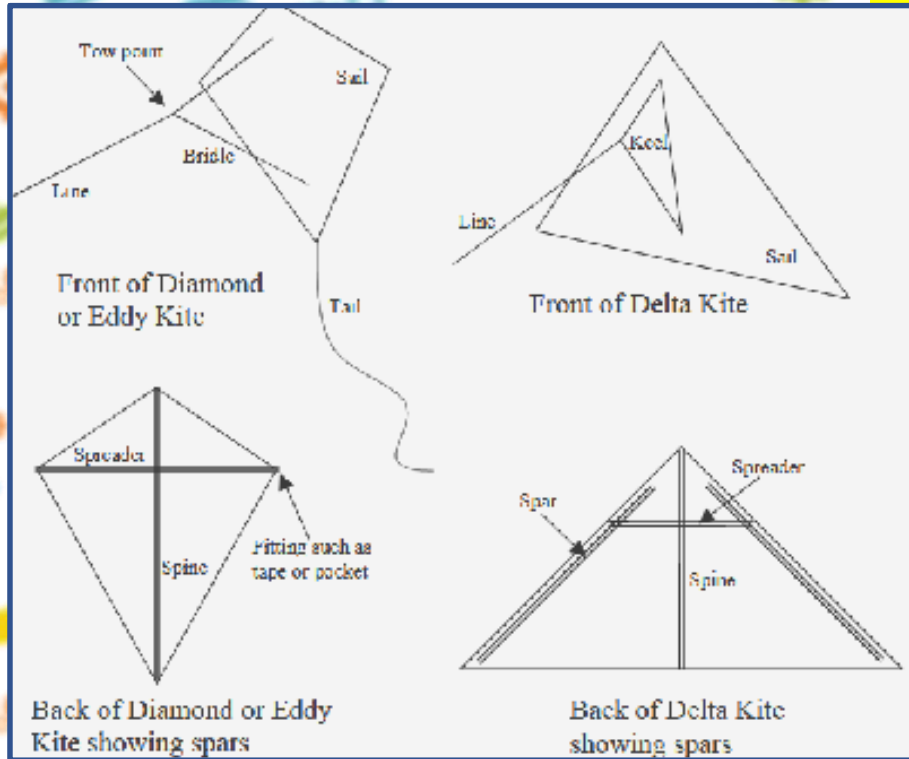


# KITE Building

Geometry

Wind dynamics

Tetrahedral Kites





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# Outdoor Sports & Water Fun









# Drone Race 4D





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# Community Art





**ART**  
**3D**



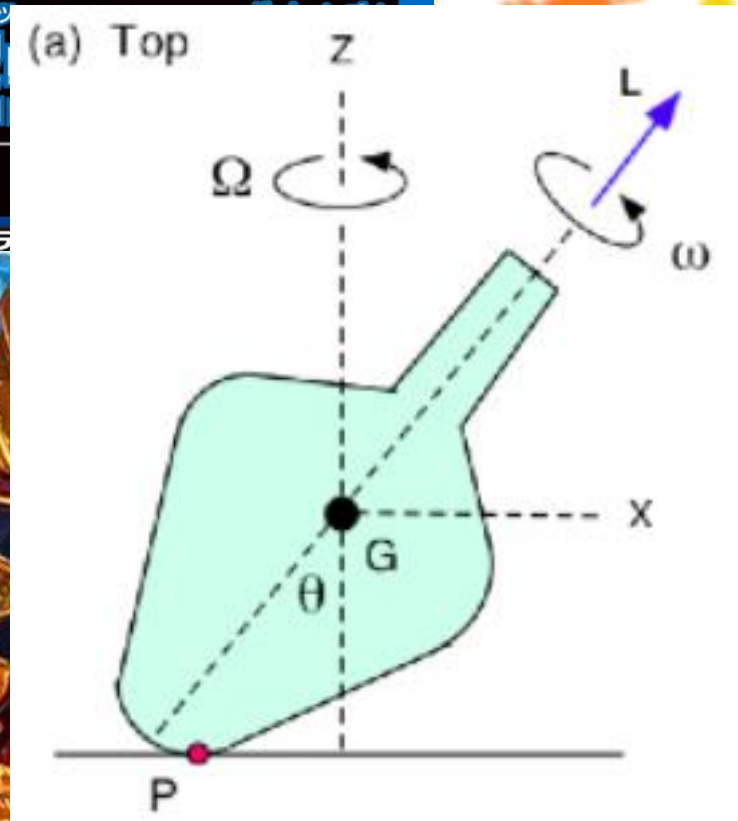
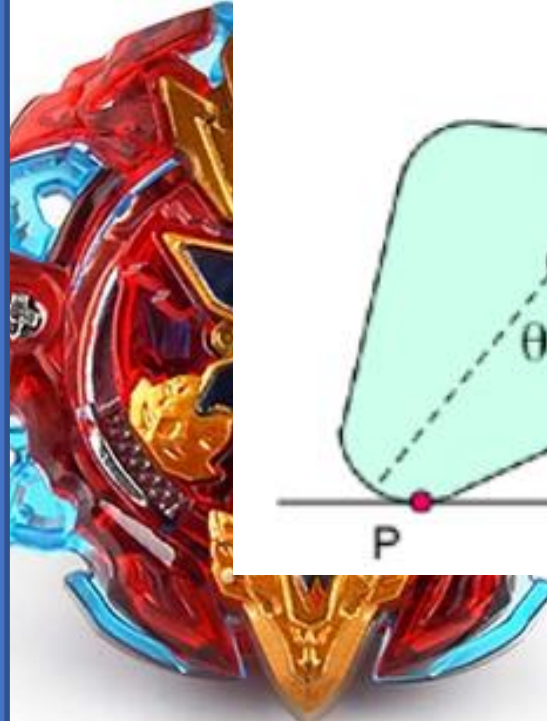






# Science of Spin

- Momentum
- Spin
- Gravity
- Centripetal force
- Issac Newton



たラバーパーツが相手と接触  
よくうだ けい  
力を生み出すアタック系。

つかこ じくさきけす うご へんか とくせい  
使い込むことによって軸先が削れて動きが変化する特性を  
も じくさきけす たか けい  
持ちつつ、軸先が削れても高さをキープできるアタック系。

つよ こうそくかいてん  
強いシュートで高速回転させると  
バーストストッパーがレイヤーを  
ロックし、バーストしない  
むでき へんけい  
無敵モードに変形!







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# Lunch Daily



# MIT GameMaker

- Coding
- Design Games
- Visual Logic
- Animation
- Creativity





# Scratch Coding

Create stories, games, and animations  
Share with others around the world



```
when green flag clicked
repeat 10
  move 10 steps
  change color effect by 25
  play drum 4 for 0.2 beats
  say Welcome to Scratch! for 2 secs
```

A creative learning community with **5,517,281** projects shared

about Scratch for educators for parents



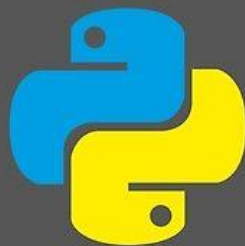
Programming is an Art



# python <CODING>

- Programming
- Games Development
- Arduino Interface
- littleBits
- Artificial Intelligence Applications





# INTRODUCTION TO PYTHON

Python is a high level programming language that is very powerful

## BASICS

### OUTPUT TEXT

```
print("Hello")
```

Your program can output simple text Strings by putting them in between Quotes

### OUTPUT NUMBERS

```
print(1234)
```

Numbers can be typed in without anything to enclose them

## VARIABLES

### STORE & USE TEXT

```
varHi = "Hi"  
print(varHi)
```

Naming variables then setting them to a value using = means we can use the name later to call the value that we set

You can change the value of a variable but not the **type** of data

### OTHER VARIABLE TYPES

```
varChar = 'a'  
varString = "Hi"  
varInt = 21  
varReal = 7.3  
varBool = True
```



changes the value of a variable





**S**  **EAM** chess

**SUMMER CAMP**



