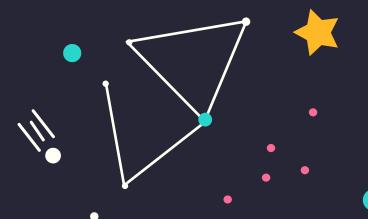


Coding Constellations

In this activity, you will be building a web page that includes a drawing of a constellation. Constellations are a group of visible stars that form a pattern when viewed from Earth.

Follow along with the coding constellations Github wiki: github.com/ibmstem4girls/constellations/wiki

- Determine the coordinates for each star in your constellation and get the computer to draw them.
- Add some information about you, the author and about the constellation itself.
- Make your web page look super awesome!





Did you know...

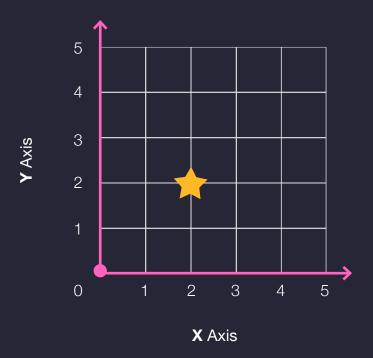
Astronomers divide the sky into 88 constellations

Names are given to each based on how it looks or from mythological figures

Set up

In order to get the computer to draw your constellation coordinates, you are going to have to set up first set up a text editor. We really like using **Sublime!**

We have set up easy steps for you to do this in **Step 1 + 2** of the Github wiki.



Imagine the sky as an x-y coordinate plane, with the origin (0,0) positioned at the bottom left corner.

If you're at the Teen Club meeting, one of the STEM Mentors will provide you with a plotted constellation. If you are at home, you can find the constellation on Github in ibmstem4girls/constellations.

For each star in your constellation grid, find the x and y location and write it as (x, y). See the image on the left for an example of a star placed at (2,2).

What are the coordinates of all the stars in your constellation?

If you need a little help, take a look at **Step 3** of the Github wiki.

Three elements of a webpage

A webpage is like a house, with different parts needed to build it and keep it standing.



HTMLThe house frame



Javascript
The moving parts



CSS
The look and feel



HTML

Hyper Text Markup Language is based on English keywords called tags that tell a web browser how to display content on a web page. Tags always have angle brackets < > on both ends, with a keyword in the middle. They typically come in pairs!

This is a paragraph tag.

opening closing

body

<h1> heading 1

<h2> heading 2

<a> hyperlink
 line break

 image

 grouping elements



To learn more about HTML, take a look at **Step 4** of the Github wiki.



PART 4

Javascript

Javascript is the most widely used programming language. It is a way to add programs, functionality and interaction to web pages. Any webpage you see today is most likely using JavaScript!

Your star coordinates will be put into the JavaScript of your web page!

Cascading style sheets gives you control of the styling on a webpage using specific properties.

color text-align

border

padding

background-color

what it looks like

In the CSS file:

background-color: yellow;

color: purple;

font-weight: bold;

h1 {

To learn more about Javascript and CSS take a look at Step 5 of the Github wiki.

In the HTML file:

Webpage!</h1>

<h1>Felise's Awesome

border padding

margin

font size