



JAVASCRIPT: EVENTS & THE DOM

Put it Together



AGENDA

First – Quick Review

- PLEASE
 - I create the Videos for you to Watch, Rewind, Re-watch, etc.
 - If I ask you to watch, take the time to do so
- thank you

IMS322 Chapt5 DOM TWY

ns

	Start Time	Number Correct (%)	Percentile	▲ Content Watched
ioh.edu	Last Saturday at 11:16 PM	2 (100%)	77	1%
mluh.edu	March 20 2020 4:25 PM	2 (100%)	77	2%
ioh.edu	Last Saturday at 11:14 PM	2 (100%)	77	10%
mluh.edu	March 19 2020 11:18 PM	1 (50%)	19	12%
mluh.edu	March 19 2020 1:48 AM	1 (50%)	19	14%
mluh.edu	March 18 2020 7:19 PM	0 (0%)	1	23%
mluh.edu	March 19 2020 1:36 PM	2 (100%)	77	25%
ioh.edu	Last Saturday at 11:13 PM	0 (0%)	1	26%
gmail.com	Last Sunday at 12:15 PM	1 (50%)	19	32%
mluh.edu	March 19 2020 2:46 PM	2 (100%)	77	43%
mluh.edu	March 20 2020 6:53 PM	1 (50%)	19	45%

Wed, April 1, 2020



AGENDA FOR
TODAY/TONIGHT



LIL' STORY & MOVIE
FOR YOU



TIME TO WORK!



Chapter 6 - Events

JavaScript is the 3rd leg of the HTML5 3-Legged Stool.

We use JavaScript for INTERACTIVITY.

It is the Combination of Events, Event Listeners, and the Code Response That Creates the **Interactivity**




BUBBLE

fresh figs 



CAPTURE

fresh figs 

BEFORE we Get To JQUERY..

WE HAVE BEEN USING
CODE.ORG TO HELP
DEMONSTRATE CONCEPTS
OF EVENTS, TRIGGERS AND
INTERACTIVITY



Code.org

C O

D E

Intro Class Rowing App

Saved 6 months ago

Rename

Share

Remix

CodeDesignData

login

CINCINNATI
COUNTRY
DAY
SCHOOL

CCDS
Rowing

Enter PIN:

Submit

Button

Run

UI controls

Data

Control

Variables

Canvas

Turtle

Math

Functions

onEvent(id, type, callback)

button(id, text)

textInput(id, text)

textLabel(id, text)

dropdown(id, option1, etc)

getText(id)

setText(id, text)

getNumber(id)

setNumber(id, number)

checkbox(id, checked)

radioButton(id, checked)

getChecked(id)

setChecked(id, checked)

image(id, url)

getImageURL(id)

setImageUrl(id, url)

playSound(url, loop)

1 onEvent("button1", "c

2 var userpin = getTe

3 getKeyValue(userpin

4 var usernum = val

5 console.log(userr

6 console.log("test

7 checkuser(usernum

8 });

9

10 });

11 function checkuser(re

12 readRecords("userII

13 for (var i =0; i

14 if (records[i]

15 var four

16 var rowe

17 }

18 console.log

19 if (foundrole ==1){

20 setScreen("atte

21 setText("label8

22 getName(rowserII

23 }

24 else if (foundrole

25 setScreen("coachm

26 else setScreen("sc

27

28 });

29 }

30 onEvent("button2", "c

31 //need to create a

32 //and also create a

33

34 createRecord("roste

35 busdir:getText

36 setScreen("login");

37

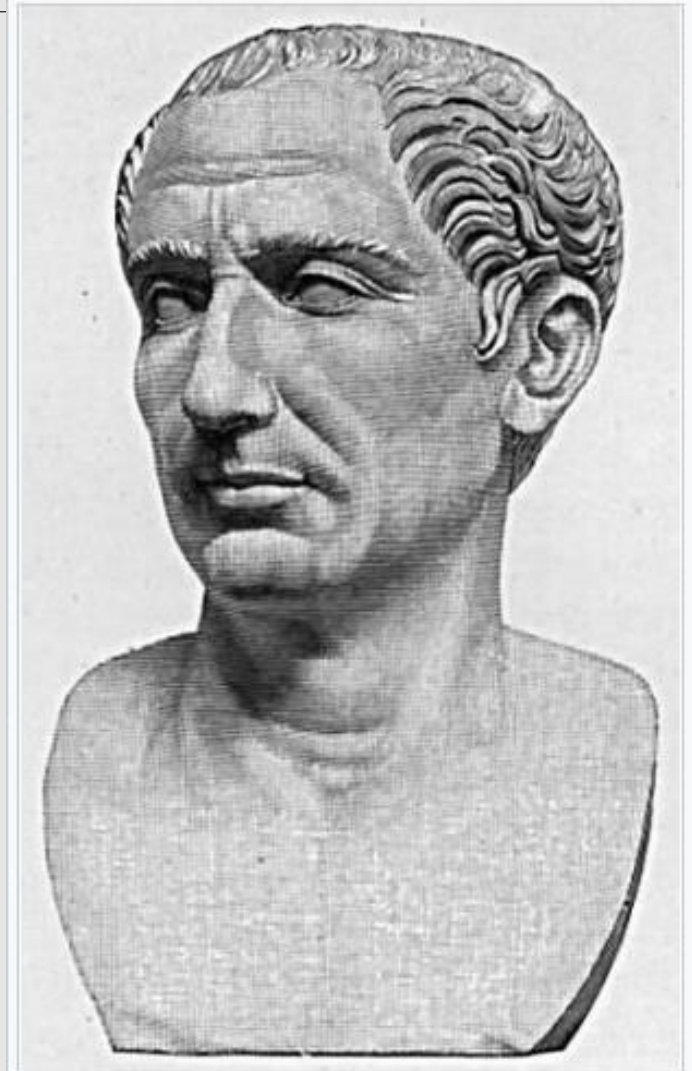
Code.org AppLab

Allows for fast, east Web App Design for Hobby Use

Features like switching between Code & Blocks, and Drag & Drop Designs allows you to create Fast Prototypes and 'Concept' apps for Marketing Projects, Pitch Competitions and More.

What Will we Create Today?

We will combine
EVENTS, JavaScript
knowledge, and a
little CS Know-How
to Create Encrypted
Messages to send
to others



The Caesar cipher is named for [Julius Caesar](#), who used an alphabet where decrypting would shift three letters to the left.



ASKEE – Who? No... ASCII Conversion TABLE

Dec	Hx	Oct	Char	Dec	Hx	Oct	Html	Chr	Dec	Hx	Oct	Html	Chr	Dec	Hx	Oct	Html	Chr
0	0	000	NUL (null)	32	20	040	 	Space	64	40	100	@	@	96	60	140	`	`
1	1	001	SOH (start of heading)	33	21	041	!	!	65	41	101	A	A	97	61	141	a	a
2	2	002	STX (start of text)	34	22	042	"	"	66	42	102	B	B	98	62	142	b	b
3	3	003	ETX (end of text)	35	23	043	#	#	67	43	103	C	C	99	63	143	c	c
4	4	004	EOT (end of transmission)	36	24	044	$	\$	68	44	104	D	D	100	64	144	d	d
5	5	005	ENQ (enquiry)	37	25	045	%	%	69	45	105	E	E	101	65	145	e	e
6	6	006	ACK (acknowledge)	38	26	046	&	&	70	46	106	F	F	102	66	146	f	f
7	7	007	BEL (bell)	39	27	047	'	'	71	47	107	G	G	103	67	147	g	g
8	8	010	BS (backspace)	40	28	050	((72	48	110	H	H	104	68	150	h	h
9	9	011	TAB (horizontal tab)	41	29	051))	73	49	111	I	I	105	69	151	i	i
10	A	012	LF (NL line feed, new line)	42	2A	052	*	*	74	4A	112	J	J	106	6A	152	j	j
11	B	013	VT (vertical tab)	43	2B	053	+	+	75	4B	113	K	K	107	6B	153	k	k
12	C	014	FF (NP form feed, new page)	44	2C	054	,	,	76	4C	114	L	L	108	6C	154	l	l
13	D	015	CR (carriage return)	45	2D	055	-	-	77	4D	115	M	M	109	6D	155	m	m
14	E	016	SO (shift out)	46	2E	056	.	.	78	4E	116	N	N	110	6E	156	n	n
15	F	017	SI (shift in)	47	2F	057	/	/	79	4F	117	O	O	111	6F	157	o	o
16	10	020	DLE (data link escape)	48	30	060	0	0	80	50	120	P	P	112	70	160	p	p
17	11	021	DC1 (device control 1)	49	31	061	1	1	81	51	121	Q	Q	113	71	161	q	q
18	12	022	DC2 (device control 2)	50	32	062	2	2	82	52	122	R	R	114	72	162	r	r
19	13	023	DC3 (device control 3)	51	33	063	3	3	83	53	123	S	S	115	73	163	s	s
20	14	024	DC4 (device control 4)	52	34	064	4	4	84	54	124	T	T	116	74	164	t	t
21	15	025	NAK (negative acknowledge)	53	35	065	5	5	85	55	125	U	U	117	75	165	u	u
22	16	026	SYN (synchronous idle)	54	36	066	6	6	86	56	126	V	V	118	76	166	v	v
23	17	027	ETB (end of trans. block)	55	37	067	7	7	87	57	127	W	W	119	77	167	w	w
24	18	030	CAN (cancel)	56	38	070	8	8	88	58	130	X	X	120	78	170	x	x
25	19	031	EM (end of medium)	57	39	071	9	9	89	59	131	Y	Y	121	79	171	y	y
26	1A	032	SUB (substitute)	58	3A	072	:	:	90	5A	132	Z	Z	122	7A	172	z	z
27	1B	033	ESC (escape)	59	3B	073	;	:	91	5B	133	[[123	7B	173	{	{
28	1C	034	FS (file separator)	60	3C	074	<	<	92	5C	134	\	\	124	7C	174	|	
29	1D	035	GS (group separator)	61	3D	075	=	=	93	5D	135]]	125	7D	175	}	}
30	1E	036	RS (record separator)	62	3E	076	>	>	94	5E	136	^	^	126	7E	176	~	~
31	1F	037	US (unit separator)	63	3F	077	?	?	95	5F	137	_	_	127	7F	177		DEL

Source: www.LookupTables.com

asciitable.com

Code Design Data

Secret Encoding App

All your base are
belong to us.

Encrypted Message

+1 ▼

Encrypt

Decrypt

Reset

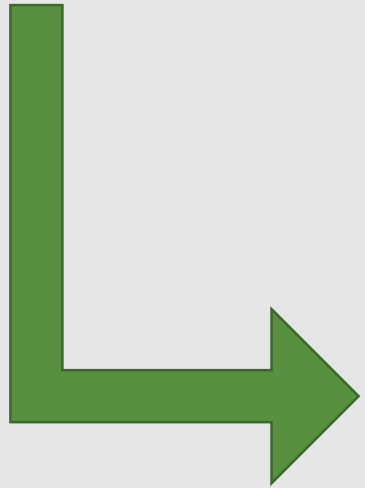
Let's Build an App!!

Event Handlers? Be like What?

Event Type	Description
change	The specified element has been modified and enter has been pressed.
click	The user clicked on the specified element.
mouseover	The user moved the mouse cursor over the specified element.
keydown	The user pressed a keyboard key while the mouse was over the element.

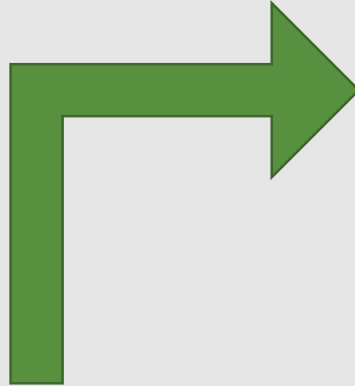
1. GRAPHICS

- LABEL/ TITLE for Your App
- Input Box for Plaintext
- Input Box For Ciphertext
- Drop Down Box for Variable Shift
- Buttons For ENCRYPT and DECRYPT



2. INTERACTION

- Based on User input (ENCR or DECR):
- User Enters Text In one of TWO input Boxes
- Select +/- shift
- Select Appropriate Button



Tools Needed

3. CODE

- Read in Test Phrase
- Read in shift value
- Store as an array of words, using 'split' method, i.e.

`var words = str.split(" ");`

Words is converted to an array, words[], where each word, separated by a space, is stored into sep. box

Split each word into an array of letters, using str.split("") with no space in quotes

Get the ASCII value of each letter word.charCodeAt(xx), where word is the variable name of the word, and xx is the position of the letter (used in a for loop)

Add the shift to the ASII value

Convert the ASCII number back to a letter, String.fromCharCode(xx), where xx is the new ascii number (ltr + shift)

Explained

Word: Ball (to lower case) →

Shift +3

b → convert to ascii → 98

Add shift (I selected 3)

$98 + 3 \rightarrow 101$

101 → convert to alpha → e

Ball → ball → edoo

“Be sure to drink your
Ovaltine”

Becomes

“be sure to drink your
ovaltine”

Then

“eh vxuh wr gulqn brxu
rydowlqh”



LET'S WRITE CODE!