

P5 SOUND AND OBJECTS

LOGISTICS

- Objects review
- Activity: objects
- Break
- Demo: loading and playing audio
- Work time

OBJECTS

- for storing *key-value pairs*
- similar to a dictionary in Python
- unordered
- values can be of any type

OBJECT SYNTAX

```
const classOf2018 = {  
  students: 38,  
  year: 2018,  
};
```

- enclosed in curly braces (`{}`)
- values mapped to keys with a colon (`:`)
- Key-value pairs also known as *properties*

ACCESSING VALUES

```
const colorObj = {  
  hue: 50,  
  saturation: 80,  
  lightness: 80,  
};  
  
console.log(colorObj["hue"]);  
  
let propVal = "saturation";  
console.log(colorObj[propVal]);
```

ACCESSING VALUES

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const colorObj = {  
  hue: 50,  
  saturation: 80,  
  lightness: 80,  
};  
  
console.log(colorObj["hue"]);  
  
let propVal = "saturation";  
console.log(colorObj[propVal]);
```

What do you think will happen?

DOT NOTATION

```
const apple = {  
  color: "Green",  
  price: {  
    bulk: "$3/kg",  
    smallQty: "$4/kg",  
  },  
};  
console.log(apple.color);  
console.log(apple.price.bulk);
```

DOT NOTATION

```
const apple = {  
  color: "Green",  
  price: {  
    bulk: "$3/kg",  
    smallQty: "$4/kg",  
  },  
};  
console.log(apple.color);  
console.log(apple.price.bulk);
```

What do you think will happen?

NON-EXISTENT PROPERTIES

```
const classElection = {  
  date: "January 12",  
};  
  
console.log(classElection.place);
```

NON-EXISTENT PROPERTIES

```
const classElection = {  
  date: "January 12",  
};  
  
console.log(classElection.place);
```

What do you think will happen?

ITERATING OVER OBJECT KEYS

```
let mobile = {  
  brand: "Samsung",  
  model: "Galaxy Note 9",  
};  
  
for (let key in mobile) {  
  console.log(`${key}: ${mobile[key]}`);  
}
```

ITERATING OVER OBJECT KEYS

```
let mobile = {  
  brand: "Samsung",  
  model: "Galaxy Note 9",  
};  
  
for (let key in mobile) {  
  console.log(`${key}: ${mobile[key]}`);  
}
```

What do you think will happen?

PASSING OBJECT

```
const origObj = { color: "blue" };

const changeItUp = (num, obj) => {
  obj.color = "red";
};

changeItUp(origObj);

console.log(origObj.color);
```

PASSING OBJECT

```
const origObj = { color: "blue" };  
  
const changeItUp = (num, obj) => {  
  obj.color = "red";  
};  
  
changeItUp(origObj);  
  
console.log(origObj.color);
```

What do you think will happen?

ACTIVITY AND BREAK

P5 SOUND DEMOS

1. [play a note](#)
2. [rainbow piano](#)
3. [raining notes](#)

WORK TIME!

