

Code Along: JSON

Starting scenario:

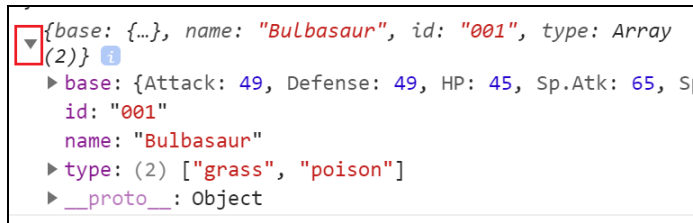
Start in the browser. Should follow along on their laptops.

Agenda:

1. What is JSON?
2. Example JSON
3. Pop Quiz!

Guide:

1. What is JSON?
 - a. Explain definition - JavaScript Object Notation. This is simply the syntax for creating a data-storing object in JavaScript.
 - b. Explain that objects do a great job of storing information and because of this have become the predominant way information is passed across the internet.
 - c. Explain understanding how objects work will be integral for understanding how to access information from the internet.
2. Example JSON
 - a. Go to [this gist](#) and share with students so they can follow along
 - b. Explain this is a simple JSON file containing information about a pokemon.
 - c. Open dev tools and copy and paste the whole JSON into the console
 - i. *NOTE: instructors may want to zoom in with Ctrl + +*
 - d. Show students they can view the structure of the object easily in this console



```
{base: {...}, name: "Bulbasaur", id: "001", type: Array  
(2)}  
  ▶ base: {Attack: 49, Defense: 49, HP: 45, Sp.Atk: 65, S  
    id: "001"  
    name: "Bulbasaur"  
    type: (2) ["grass", "poison"]  
    __proto__: Object
```

- e. Explain that if we want to interact with this object, we'll need to store it in a variable.
- f. In the browser, create a variable named "bulbasaur" and set it equal to the object (just paste it again)

```
const bulbasaur = {
  "base": {
    "Attack": 49,
    "Defense": 49,
    "HP": 45,
    "Sp.Atk": 65,
    "Sp.Def": 65,
    "Speed": 45
  },
  "name": "Bulbasaur",
  "id": "001",
  "type": [
    "grass",
    "poison"
  ]
}
```

i.

3. Pop Quiz!

a. Ask students how to access various parts of the JSON. Verify their solution on your screen.

- i. The id
- ii. The Speed
- iii. The 2nd type
- iv. Change the Sp.Atk to 70

```
> bulbasaur.base.Sp.Atk
✖ Uncaught TypeError: Cannot read property
  'Atk' of undefined
    at <anonymous>:1:19
> bulbasaur.base["Sp.Atk"]
< 65
```

1.

2. *NOTE: this will require using the bracket notation, instead of dot notation. This is because the name for this key is not properly formed for dot notation (it includes a dot!)*

v. Add the key “legendary” and set its value to *false*

b. *NOTE: This activity probably won’t take the whole time, but if your students are still struggling with objects, please use this time for review. Otherwise, feel free to move on.*