

Lesson 05.02 - FINAL

looping arrays of objects to make a video player interface

1. Preview the html file in the browser.

The interface is a grid of 18 animal thumbnail images at left, and a video player, at right. Info about the animal appears below the video. The first animal, 'American bison' appears on page load.

2. Click an animal thumbnail pic to load the video and description for that animal.
3. Open animals.js. It contains one variable, an array of objects called **animalsArr**.

Each object has six properties:

- name ('giraffe', 'ostrich', etc.)
 - class ('mammal', 'bird', 'reptile')
 - herbivore (boolean: true or false)
 - continent ('Asia', 'Africa', etc.)
 - youTube (YouTube video embed code)
 - desc (description of the animal)
4. Open the **images** folder. Notice that the two-word file names are hyphenated, whereas the animal names in animals.js are separated by spaces--no hyphens.
- FILE: american-bison.jpg, andean-bear.jpg
 - DATA: 'American bison', 'Andean bear'

Procedure for making the application:

- We will loop through the array
 - Each time the loop, we will concatenate an **img** tag.
 - The **img** tag will have an **onclick** event that calls a function called **swapImage(i)**.
 - The **i** argument is the index of the current item.
 - The function uses the index to look up that animal object in the animals array
 - The YouTube video has an 11-character code specific to that particular video.
 - The 11-char code is concatenated into an iframe tag, which YT provides for embedding video into the page
5. Get the necessary DOM elements:
- div of id **animal-pics** for the grid of animal pics
 - div of **video-player** for holding the video
 - **h2** for displaying the animal name

05.02-Looping-Arrays-of-Animals-README.md

- **p** for displaying the description.

```
const animalPicsDiv = document.getElementById('animal-pics');
const videoPlayerDiv = document.getElementById('video-player');
const h2 = document.querySelector('h2');
const p = document.querySelector('p');
```

6. On page load, output 'American bison' and its description:

- the first object in the array is **animalsArr[0]**
- 'American bison' is the name property: **animalsArr[0].name**
- the description is the desc property of the object

```
h2.textContent = animalsArr[0].name;
p.textContent = animalsArr[0].desc;
```

7. Display the video for the first animal ('American bison'):

- the iframe tag for each video is identical, except for the 11-character code:
- the code is found in the animal object's **youTube** property
- concatenate **animalsArr[0].youTube** into the iframe:

```
videoPlayerDiv.innerHTML = `<iframe width="560" height="315"
src="https://www.youtube.com/embed/${animalsArr[0].youTube}" title="YouTube video player" frameborder="0"
allow="accelerometer; autoplay clipboard-write; encrypted-media; gyroscope; picture-in-picture" allowfullscreen>
</iframe>`;
```

8. Reload the page in the browser. We should have the Bison video and description at right, and an empty div at left.

Now, to output the animal thumbnail images to the empty **animal-pics** div. Each image needs to be clickable to call the function which swaps the animal video and info.

9. Iterate **animalsArr** with a for loop:

```
for (let i = 0; i < animalsArr.length; i++) {
  // 10. Simplify the current animal object as a variable:
  let animalObj = animalsArr[i];
  // 11. Replace the space in the animal name with a hyphen:
  let hyphenatedName = animalObj.name.replace(' ', '-');
  // 12. Concatenate the thumb pic img tag, which calls the swapAnimals function on click. Pass in the index, so that
  the function knows which animal pic is calling it:
  let thumbPic = ``;
  // 13. Output the clickable thumbnail pic to the div:
  animalPicsDiv.innerHTML += thumbPic;
}
```

10. Save and reload the page; the images should all be there although clicking them doesn't work yet, since we still need to write the **swapAnimal(i)** function.

05.02-Looping-Arrays-of-Animals-README.md

// 16. Define the function. It has a parameter `i`, so that the function call must pass in the expected index.

```
```js
function swapAnimal(i) {

 // 17. Get the animal object by index from the array, and output that animal's name and
 description to the DOM:
 h2.textContent = animalsArr[i].name;
 p.textContent = animalsArr[i].desc;

 // 18. Concatenate `animalsArr[i].youtube` into the iframe:
 videoPlayerDiv.innerHTML = '<iframe width="560" height="315"
src="https://www.youtube.com/embed/' +
 animalsArr[i].youtube + '" title="YouTube video player" frameborder="0"
allow="accelerometer; autoplay; clipboard-write; encrypted-media; gyroscope; picture-in-
picture" allowfullscreen></iframe>';
}
```
```

18. Save and reload the page. Click an animal to load its video and description.