

## Selection in arrays using functions:

```
def select_less_than_five(array)
  index = 0
  new_array = []

  while index < array.length
    if array[index] < 5
      new_array << array[index]
    end
    index = index + 1
  end

  return new_array
end

puts select_less_than_five([10,3,4,55,32,6,1])
```

## Mapping:

```
numbers = [5, 10, 15, 20]

numbers_2 = []
index = 0
while index < numbers.length
  numbers_2 << numbers[index] * 10
  index = index + 1
end

p numbers_2
```

## Using arrays with conditionals:

```
array = [3, 123, 433, -77, 56, 200, 99, 101, 6]

index = 0
while index < array.length
  if array[index] > 100
    puts array[index]
  end
  index = index + 1
end
```

## Arrays: Selecting array items to a new array

```
words = ["cat", "remove", "list", "change"]
```

```
words_2=[]
index = 0
while index < words.length
  if words[index].length < 5
    words_2 << words[index]
  end
  index = index + 1
end
```

```
p words_2
```

## Array iteration with varying increments

```
numbers = [3, 5, 1, 6, 9, 2, 4, 8] # 1
new_numbers = [] # 2
index = 5 # 3
while index < numbers.length # 4
  new_numbers << numbers[index] + 10 # 5
  index = index + 2 # 6
end # 7
p new_numbers # 8
```

```
# 1: numbers is [3, 5, 1, 6, 9, 2, 4, 8]
```

```
# 2: numbers is [3, 5, 1, 6, 9, 2, 4, 8], new_numbers is []
```

```
# 3: "
```

```
# 4: "
```

```
# 5: numbers is [3, 5, 1, 6, 9, 2, 4, 8], new_numbers is [12, 14, 18]
```

```
# 6: numbers is [3, 5, 1, 6, 9, 2, 4, 8], new_numbers is [12,18]
```

```
# 7: "
```

```
# 8: "
```

## Hashes with arrays

```
drink1 = {"name" => "Seltzer", "ingredients" => ["water", "bubbles"]}
drink2 = {"name" => "Coca Cola", "ingredients" => ["water", "bubbles", "sugar",
"brown food coloring"]}
drink3 = {"name" => "water", "ingredients" => ["hydrogen", "oxygen"]}
```

```
p drink1["name"]
```

```
p drink1["ingredients"]
```

```
p drink1["ingredients"][0]
```