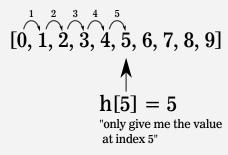
## When indexing and slicing this numpy array:

h=np.array([0, 1, 2, 3, 4, 5, 6, 7, 8, 9])

## Simple Index:



$$[0, 1, 2, 3, 4, 5, 6, 7, 8, 9]$$

$$h[-2] = 8$$
"only give me the value

at the 2nd to last index

## Slice:

$$[0,1,2,3,4,5,6,7,8,9]$$

h[5:8] = array([5, 6, 7])

"give me a slice (array) starting at index 5 and stopping, but not including index 8"

$$[0,1,2,3,4,5,6,7,8,9]$$

h[5:] = array([5, 6, 7, 8, 9])

"give me a slice (array) starting at index 5 and stopping at the end of the array"





h[:3] = array([0, 1, 2])

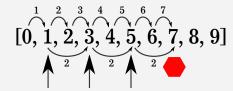
"give me a slice (array) starting at index 0 and stopping, but not including index 3"

$$[0, 1, 2, 3, 4, 5, 6, 7, 8, 9]$$

h[-6:-2] = array([4, 5, 6, 7])

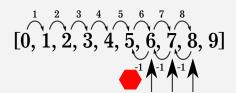
"give me a slice (array) starting at 6th index from the end and stopping, but not including, the 2nd index from the end"

## Slice, with step:



$$h[1:7:2] = array([1, 3, 5])$$

"give me a slice (array) starting at index 1 and stopping, but not including index 7, with a step value of 2



$$h[8:5:-1] = array([8, 7, 6])$$

"give me a slice (array) starting at index 9 and stopping, but not including index 5, with a step value of -1 (i.e. in reverse)

$$h[:-3:-1] = array([9, 8])$$

"give me a slice (array) starting at the end of the array, and stopping at the 3rd index from the end with a step value of -1 (i.e. in reverse)