

Array_4 13/08/20

```
// Arrays can also contain other arrays.  
// These are called Two Dimensional arrays.
```

```
int bit1 = 4;  
int bit2 = 5;  
int bit3 = 6;  
int bit4 = 7;  
int numCount = 0;
```

```
int bits[]          {bit4,bit3,bit2,bit1};
```

//The numbers in the brackets indicate the number of elements in the sections of the array. eg 10 groups of four values. However when recalling these values from the array, the number would be referenced from 0-9 and 0-3.

```
int Numbers[10][4]{  
  /*zero*/      { 0 , 0 , 0 , 0 },  
  /*one*/       { 0 , 0 , 0 , 1 },  
  /*two*/       { 0 , 0 , 1 , 0 },  
  /*three*/     { 0 , 0 , 1 , 1 },  
  /*four*/     { 0 , 1 , 0 , 0 },  
  /*five*/     { 0 , 1 , 0 , 1 },  
  /*six*/      { 0 , 1 , 1 , 0 },  
  /*seven*/    { 0 , 1 , 1 , 1 },  
  /*eight*/    { 1 , 0 , 0 , 0 },  
  /*nine*/    { 1 , 0 , 0 , 1 }};
```

```
void setup() {  
  pinMode(bit1,OUTPUT);  
  pinMode(bit2,OUTPUT);  
  pinMode(bit3,OUTPUT);  
  pinMode(bit4,OUTPUT);  
}
```

```
void loop() {  
  for(int repCount = 0;repCount <= 3;repCount++){  
    digitalWrite(bits[repCount], Numbers[numCount][repCount]);  
  }  
  numCount++;  
  if(numCount == 10){numCount = 0;}  
  delay(1000);  
}
```