Certainly! Here is the step-by-step process for constructing Newton's Interpolation Polynomials using divided differences:

Step 1: Gather the data points

First, you need to have a set of data points that you want to interpolate. Let's suppose you have the following set of data points:

```
x    y
---------
1    3
2    5
4    7
5    8
```

Step 2: Calculate the divided differences

Next, you need to calculate the divided differences of the data points. The divided differences are defined as:

```
f[x_i] = y_i

f[x_i, x_i+1, ..., x_j] = (f[x_i+1, x_i+2, ..., x_j] - f[x_i, x_i+1, ..., x_j-1]) / (x_j - x_i)
```

You start by calculating the first-order divided differences:

```
f[1,2] = (5 - 3) / (2 - 1) = 2
f[2,4] = (7 - 5) / (4 - 2) = 1
f[4,5] = (8 - 7) / (5 - 4) = 1
```

Then, you calculate the second-order divided differences:

```
f[1,2,4] = (1 - 2) / (4 - 1) = -1/3
f[2,4,5] = (1 - 1) / (5 - 2) = 0
```

Finally, you calculate the third-order divided difference:

```
f[1,2,4,5] = (0 - (-1/3)) / (5 - 1) = -1/36
```

Step 3: Write the interpolation polynomial

The interpolation polynomial is given by:

```
P_n(x) = f[x_0] + f[x_0, x_1](x - x_0) + f[x_0, x_1, x_2](x - x_0)(x - x_1) + ... + f[x_0, x_1, ..., x_n](x - x_0)(x - x_1)...(x - x_n)
```

In our example, the interpolation polynomial is:

```
P_3(x) = 3 + 2(x - 1) - 1/3(x - 1)(x - 2) - 1/36(x - 1)(x - 2)(x - 4)
```

Step 4: Evaluate the interpolation polynomial

Finally, you can use the interpolation polynomial to estimate the value of the function at any point in the interval [1,5]. For example, if you want to estimate the value of the function at x = 3, you can evaluate the interpolation polynomial as follows:

```
P_3(3) = 3 + 2(3 - 1) - 1/3(3 - 1)(3 - 2) - 1/36(3 - 1)(3 - 2)(3 - 4) = 6
```

Therefore, the estimated value of the function at x = 3 is 6.