In [14]:
```
# imports
import pandas as pd
from matplotlib import pyplot as plt
%matplotlib inline
plt.style.use('seaborn')
```

In [2]:
```
# read the csv
df_temp = pd.read_csv('temp.txt')
```

In [3]:
```
#check the frame
df_temp.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 247 entries, 0 to 246
Data columns (total 6 columns):
 #   Column           Non-Null Count  Dtype  
---  ------           --------------  -----  
 0   year             247 non-null    int64  
 1   city             247 non-null    object 
 2   country          247 non-null    object 
 3   local_avg_temp   247 non-null    float64
 4   year.1           247 non-null    int64  
 5   global_avg_temp  247 non-null    float64
dtypes: float64(2), int64(2), object(2)
memory usage: 11.7+ KB
```

In [4]:
```
df_temp['ma_global'] = df_temp['global_avg_temp'].rolling(window = 10).mean()
df_temp['ma_local'] = df_temp['local_avg_temp'].rolling(window = 10).mean()
df_temp.tail()
```

Out[4]:

	year	city	country	local_avg_temp	year.1	global_avg_temp	ma_global	ma_local
242	2009	Kansas City	United States	12.03	2009	9.51	9.493	12.780
243	2010	Kansas City	United States	12.68	2010	9.70	9.543	12.775
244	2011	Kansas City	United States	12.79	2011	9.52	9.554	12.745
245	2012	Kansas City	United States	14.79	2012	9.51	9.548	12.924
246	2013	Kansas City	United States	13.99	2013	9.61	9.556	13.067

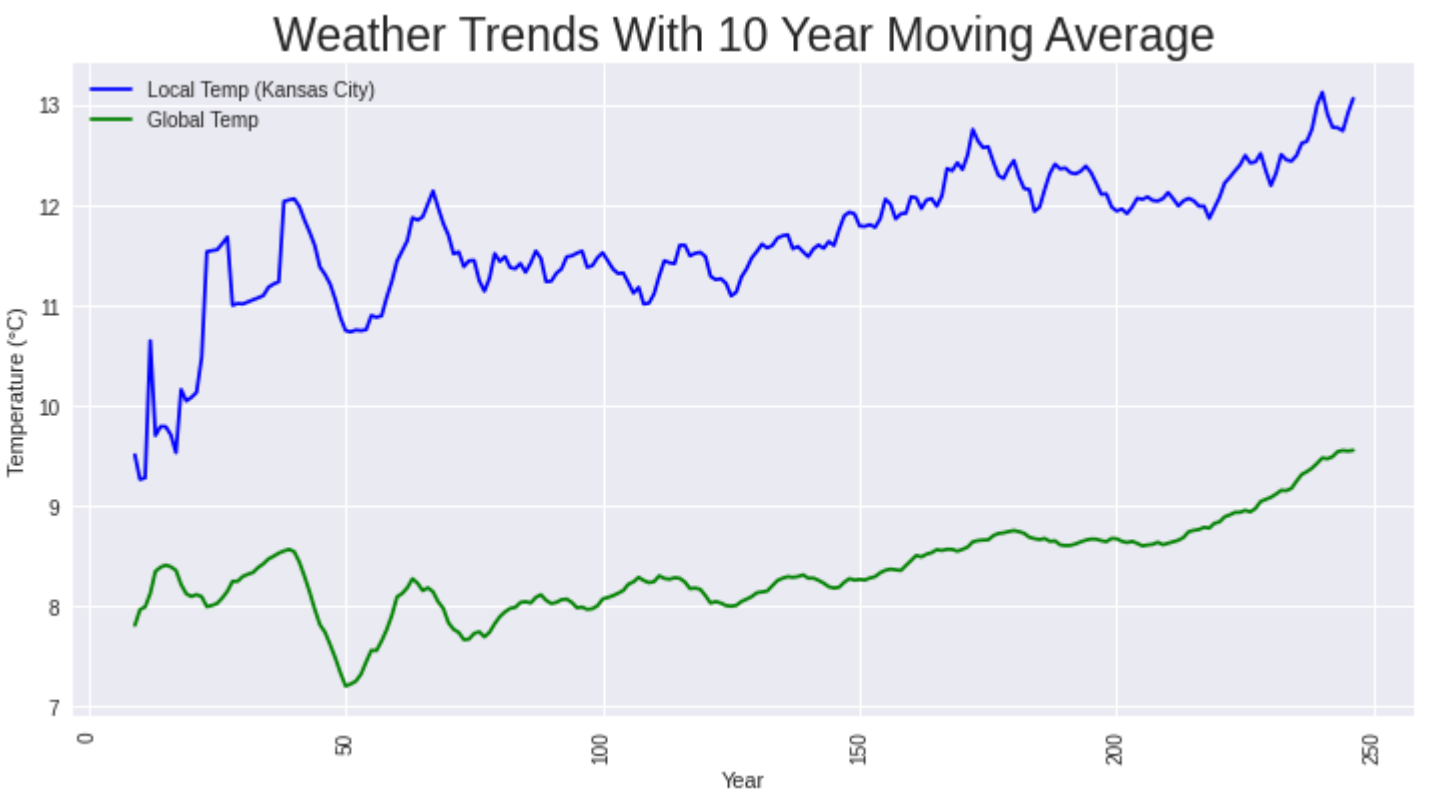
In [47]:
```
import numpy as np
fig= plt.subplots(figsize=(12,6))

#xticks = np.arange(len(df_temp))
xlabel = df_temp['year']

plt.plot(df_temp['ma_local'], label='Local Temp (Kansas City)', color= 'blue')
plt.plot(df_temp['ma_global'], label='Global Temp', color= 'green')
plt.legend(loc=2)
plt.title('Weather Trends With 10 Year Moving Average', fontsize=23)
plt.xlabel('Year')


plt.xticks(ticks = None, label=xlabel, rotation=90)


plt.ylabel('Temperature (°C)')
plt.show()
```



In [46]:
```
df_temp['year']
```

Out[46]:
```
0      1758
1      1759
2      1760
3      1768
4      1769
       ...
242    2009
243    2010
244    2011
245    2012
246    2013
Name: year, Length: 247, dtype: int64
```