



وزارة التعليم
Ministry of Education

Study of the Type of a Relationship Between Global warming and Average Temperatures

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Abstract:

There is no doubt that the population density and high rate of exhaust fumes in the air caused an increase in global warming, thus, this leads to a rise in the average global temperature, and we find a noticeable increase in equator areas.

By highlighting NASA's website data, the rise has been a slight temperature change in our region - Saudi Arabia - in the last 10 years.

We started the research process by observing the global warming ratios and the ozone hole data accurately, looking at the relationship between the global warming ratio and the process of the recovery of the ozone hole and the correlation between them aroused our interest and curiosity to conduct this study.

Research Question and Hypothesis:

When we were doing the temperature input at the (globe) website, we found some oscillation in it from season to season; We looked for this phenomenon, and through research it was established that the average temperatures of the planet earth are not constant.

We set the questions as follows:

- 1- What is the relationship between global warming and temperature?
- 2- How does global warming affect the ozone hole?
- 3- What are the proposed solutions to reduce the impact of this phenomenon?
- 4- What should we - the inhabitants of planet Earth - do about this dilemma?

Essential Question: What is the cause for the temperature change in the last ten years?

Hypotheses:

The Global Warming have an impact on the average temperature, we have two hypotheses.

Basic: The impact of global warming on average temperatures.

Alternative: Represented by the impact of increasing the area of the ozone hol

Introduction:

Recently, research and studies indicated the increase of global warming on the earth and it will increase by the next fifty years.

The temperature oscillation over the years has been remarkable, and through the research, we found a relationship between average temperatures and the degree of global warming, and it is a direct relationship whereby the more the degree of global warming increases, the average temperature rises with an unsteady rise, and we draw attention to the fact that we noticed the presence of an inverse relationship connects the degree of global warming and the ozone hole recovery process, as the high degree of global warming slows down the ozone hole recovery process.

We have found that greenhouse gases and carbon dioxide inhibit the recovery process of the ozone hole, and that global warming is not limited to the Earth's surface temperature only, but also damages the ozone layer.

Research Methods and Materials:

GLOBE official website data for air and temperature for the years 2016-2022

NASA global warming website data from 1990 – 2020

NASA ozone hole website data for 2019

Air Temperature 1-Day Editing

Enter The Date And Time Of The Observation (24hr)

UTC
 Local
 [Get Current UTC Time](#)

Your UTC time converted to Local (+03) time is 2021-10-22 12:22

Solar Noon: 9:07 UTC

Air Temperature * indicates required sections or fields

Entering of a maximum or minimum temperature is not needed because you have a Digital: Multi-day thermometer type defined with this site. If this is not the case, please [edit your atmosphere site](#).

Current Temperature

°C

Comments

الهواء درجة الحرارة 1 يوم تحرير

(أدخل تاريخ ووقت الملاحظة بالتوقيت العالمي في 24 ساعة)

UTC
 Local
 [جوز التوقيت العالمي الحالي](#)

الوقت العالمي تحول إلى وقتك المحلي يكون 12:00 22-10-2016

الظهر الشمسي: UTC 9:07

* يشير إلى المناطق أو الحقول المطلوبة

درجة حرارة الهواء

لا يتطلب إدخال بيانات درجة الحرارة العنصري أو الصغرى ذلك Digital: Multi-day نوع الترمومتر معرف في هذا الموقع إذا لم يكن كذلك.

يرجى، حذف موقع الغلاف الجوي

درجة الحرارة الحالية

مئوية

Results:

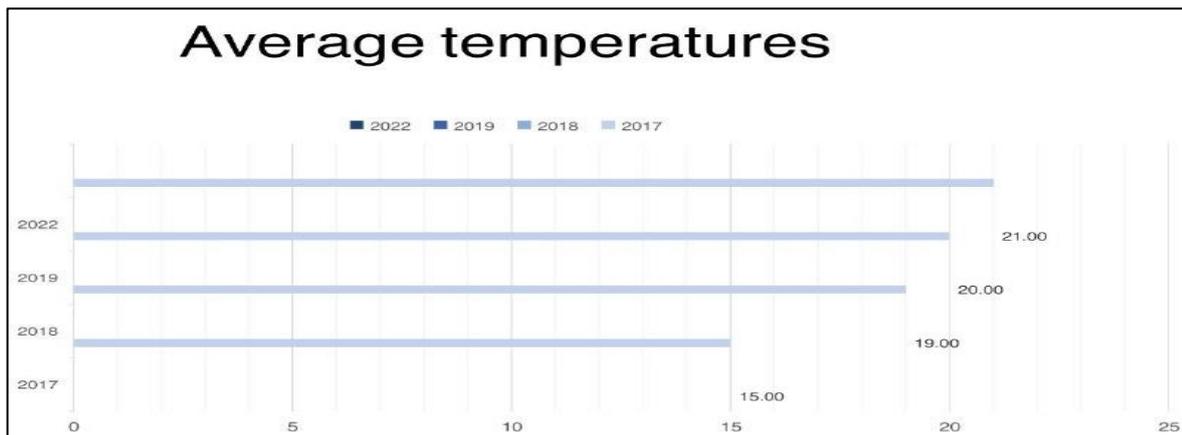
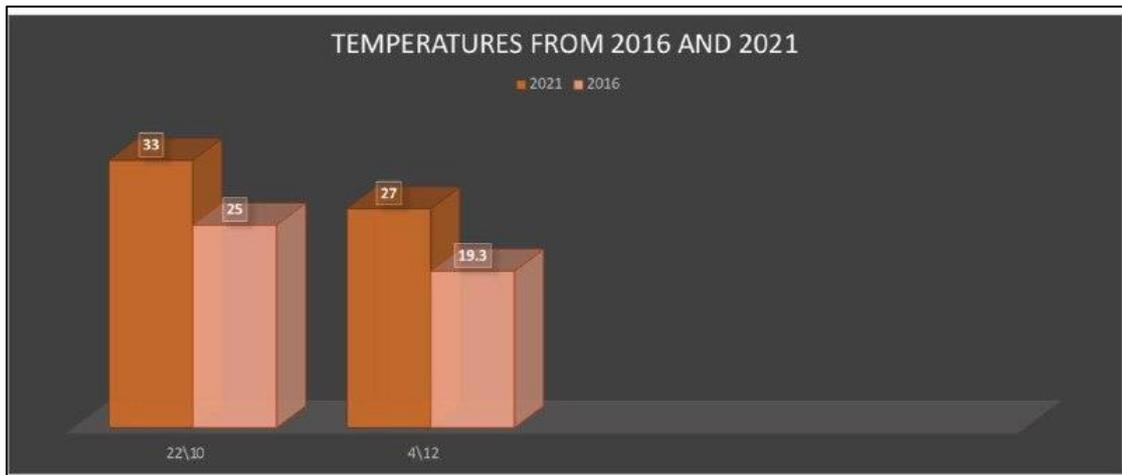
- The direct relationship between the amount of global warming and the average temperature.
- The inverse relationship between the amount of global warming and the duration of the contraction of the ozone hole.
- 2016 was characterized by the lowest average temperature, followed by 2020 according to the report of the National Oceanic and Atmospheric Administration.

Conclusion:

The Main Question: What is the cause for the temperature change in the last ten years?

In light of the hypothesis, we noticed a relationship between global warming and temperature change, which is a direct relationship.

In the following charts, we tested two different days of 2016 and 2021 in different seasons of the year and tested the average temperatures.



Discussion:

Global warming is one of the most important problems, therefore, it is necessary to shed light on it in the twenty-first century and to search for solutions to reduce it or partially avoid its effects. We have come up with several solutions that will reduce this impact.

(Recommendations)

- We recommend to reduce the use of cars and using bicycles instead.
- We recommend the use of environmentally friendly cars such as electric cars or cars that use alternative fuels.
- We recommend using public transportation to reduce exhaust fumes.
- Educating children and inculcating in them the principles and values of preserving our environment.

References:

<https://shortest.link/3a1W>

<https://shortest.link/3jve>

<https://shortest.link/3jvj>

<https://shortest.link/3a25>

<https://shortest.link/3jvm>

Acknowledgements:

In conclusion, we would like to thank the chemistry teacher and Globe Environmental Program Supervisor: Mrs. Majedah Aljohani for her efforts and support during the research preparation period. We also thank Dr. Ibrahim AlMobarki for the grammar check, and our parents for their support and for giving us the opportunity to participate in this research.