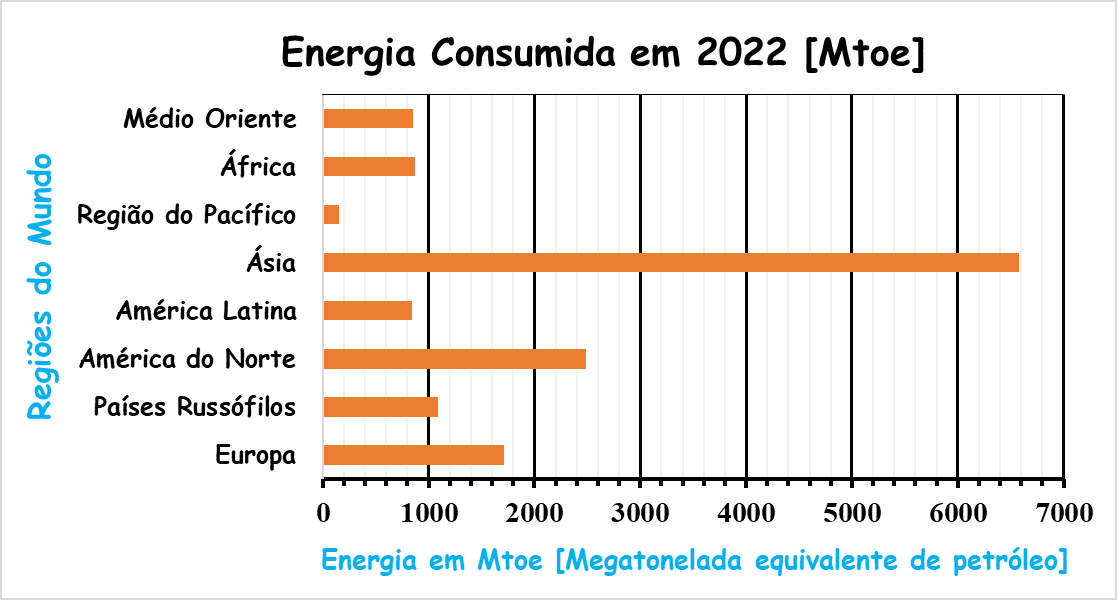
1. Considering what you already know about the theme, and after some research, answer the following questions:
   1. By analyzing the graph below, indicate, approximately, the amount of energy consumed in 2022, in Mtoe.



(**Curiosity:**

Consumed energy in 2022 [Mtoe]

World Regions

Middle East

Africa

Pacific Region

Asia

Latin America

North America

Eastern Europe

Central Europe

Energy in Mtoe (Megaton equivalent of oil)

The information in this graph states that in Europe about 1713 Mtoe were consumed, in Russophile countries (Russia and Russia sympathizers) 1092 Mtoe, in North America about 2483 Mtoe, in Latin America 840 Mtoe, in Asia 6580 Mtoe, in the Pacific region 156 Mtoe, in Africa 869 Mtoe and in the Middle East about 852 Mtoe, which makes a total amount of energy consumed worldwide in 2022 of approximately 14585 Mtoe .

* 1. By analyzing the pie chart below, indicate which is the main energy source consumed in 2022, and, following, according to the answer from 1.1, in Mtoe, the amount of consumed energy for each energy source in the pie chart.

From the analysis of the pie chart, it is possible to verify that the most consumed energy source in the world was oil with about 30%. Taking into account the total amount of energy consumed worldwide [14585 Mtoe] identified in question 1, converting the percentages of the pie chart we obtain that in 2022, about 4375.5 Mtoe of oil, 3937.95 Mtoe of coal, 1458.5 Mtoe of electricity, 1458.5 Mtoe of biomass and 3354.55 Mtoe of natural gas were consumed.

Uma imagem com texto, captura de ecrã, diagrama, círculo

Descrição gerada automaticamente

Consumed energy sources in the word in 2022 (%)

Oil

Natural gas

Electricity

Coal

Biomass

* 1. China and the United States of America are, currently, the countries which present the bigger amount of annually produced wealth. Additionally, they are also the two countries that produce more energy (3801 and 2182 Mtoe, respectively). Africa, a whole continent, and one of the poorest regions in the world, consumed only 869 Mtoe of energy in 2022. Is there any cause/effect connection between the development of the countries and their energy consumption? If so, why does it happen?

In the answer to question 3, it must be concluded that there is, in fact, a relationship between the degree of development of countries and their respective energy consumption, as shown in the links referred to in the file and referenced at the beginning of the formulation of question 3, since China and the USA, the richest countries in the world, are also the most energy consuming countries, while an entire continent such as Africa is one of the regions of the world that consumes less energy. This comparison shows the importance that energy has in everyday life, since almost all our activities, from the most basic (transport, food), to the most complex (production lines, heavy industry) are somehow dependent on energy consumption, and those who are more industrialized, such as China or the USA, will naturally need to consume more energy, which is what happens.

**To Learn More…**

If you would like to explore further about this class theme, on the Keywords Table there are several links available, with additional information, related to each keyword. To access this information, click on the corresponding link on the section “References”.

**Keyword Table**

|  |  |
| --- | --- |
| **Keywords** | **References Number** |
| Graph of consumed energy in 2022 | **[1]** |
| Pie chart of the consumption of energy sources | **[1]** |
| Energy consumption per country | **[1]** |

**References**

**[1]** <https://yearbook.enerdata.net/total-energy/world-consumption-statistics.html>