Teacher Sheet 1

MATH APPLICATION ACTIVITY: CALCULATING GLOBAL CO_2 EMISSIONS

OBJECTIVE: Students will:

- Calculate the per capita heating value contributed by the global community;
- Illustrate the data in several different formats.

MATERIALS:

- **Student Sheets**
- Paper/pencil/Colored pencil/markers
- Ruler
- Calculator
- Graph paper
- Access to computer

PROCEDURE:

1. Read and discuss the **INTRODUCTION** and the **DATA TABLE** with the class.
   - Be sure students understand the difference between **total emissions** and **per capita**.

2. Direct students to calculate the per capita contributions for each country using the formula below:

Total carbon emissions / Total population = Per capita emissions

55,194 ÷ 28.58 = 1.931

Note: Students need to move the decimal point 3 places to the left in the final answer.

3. Students should record their answers on the **DATA TABLE.**

4. Direct students to create a bar graph (and write a title) of the top 15 countries with the highest per capita CO_2 emission for 2015.
   - Y axis: Metric tons of CO_2 per capita

- X-axis: country
- Y-axis notations should proceed from 0 at the bottom to 30 at the top.
- Use a different color for each country.

5. Students should then answer the questions in the **ANALYSIS /COMPREHENSION section.**