

LESSON 4

TOPIC: CLIMATE CHANGE

SUB TOPIC: HOW MUCH ENERGY DO WE USE?

LESSON 4: ENERGY CONSUMPTION – A WORLDWIDE VIEW

SUBJECT: GEOGRAPHY S.E.S.E AND S.P.H.E

CLASS LEVEL: 3RD / 4TH CLASS (8-10 YEAR OLDS)

LEARNING OBJECTIVES:

To introduce the concept of per capita with regard to energy consumption.

Strand: Environmental Awareness and Care

Strand unit: Environmental Awareness

Strand: Myself and the wider world

Strand unit: Environmental Care

LESSON OBJECTIVES:

- To reflect on how energy consumption can be reduced.
- To understand how carbon emissions per capita are calculated.
- To understand that not every country and person has equally contributed to climate change.

LESSON PLAN



INTRODUCTION:

- Ask the class can they remember how can we save energy in our homes and schools in Ireland?
- Divide the class into 6 groups and each group will represent a country from the previous lesson (Ireland, Haiti, Philippines, Zambia, Togo and Myanmar). Ask each group to make a sign for their country.
- For this activity, energy consumption is represented by counters or chocolate buttons. Remind the class that energy consumption is the amount of CO₂ we use.
- Distribute the counters or chocolate buttons:

COUNTRY	COUNTERS	CHOCOLATE BUTTONS
Ireland - 8.1 tCO ₂ /pp	80	10
Philippines - 1.3 tCO ₂ /pp	10	1
Myanmar - 0.5 tCO ₂ /pp	5	1/2
Togo - 0.4 tCO ₂ /pp	4	1/4
Zambia - 0.3 tCO ₂ /pp	3	0
Haiti - 0.3 tCO ₂ /pp	3	0

Source: Global Carbon Atlas

- Group discussion: Ask the class what do the counters or buttons represent? What does it mean? Is it fair?



DEVELOPMENT:

- Ask the class do all countries use the same amount of CO₂? Are we all equally to blame for the world's climate changing?
- Show the slide with the bar chart showing the population for each country and the bar chart of CO₂ per capita. Explain that CO₂ per capita is calculated by dividing the total of CO₂ emissions of a country by the number of people living in each country.
- Discuss: Which country uses the most per person? Is this fair?



CONCLUSION:

Activity Time!

Walking Debate

- Divide the classroom into the 'Yes' side of the room and the 'No' side of the room. Ask the class 'Are we all equally to blame for the climate changing in the world?'. Ask students to go to the side of the classroom they agree with: 'Yes' or 'No'. Ask one student from each side to give one argument.
- As the activity progresses, ask students do they want to switch sides? Does one side of the argument seem better than the other?
- All students should end up on the 'No' side – we are not all equally to blame for the climate changing in the world.

Reflection Time!

- Ask students to discuss what new information did they learn in this lesson? What did they find difficult about this lesson?

LINKAGE AND INTEGRATION FOR THIS LESSON:

MATHS

Strand: Number (counting and numeration)

Strand: Data

DIFFERENTIATION:

- For the 'Energy Consumption' slide use the Flag Matching Resource Sheet and/or the World Map from lesson 3 if students need to recap where each country is.
- Give students plenty of time to complete each activity.
- Use mixed ability groups for activities.

ASSESSMENT:

- The teacher can assess the children's abilities to interpret the bar charts in the presentation.
- The teacher can assess the children's understanding during the walking debate.
- During reflection time, the teacher can assess the children's learning through feedback on new information they learned.

RESOURCES:

- IWB
- USB Presentation
- Counters/Chocolate buttons
- Yes/No signs

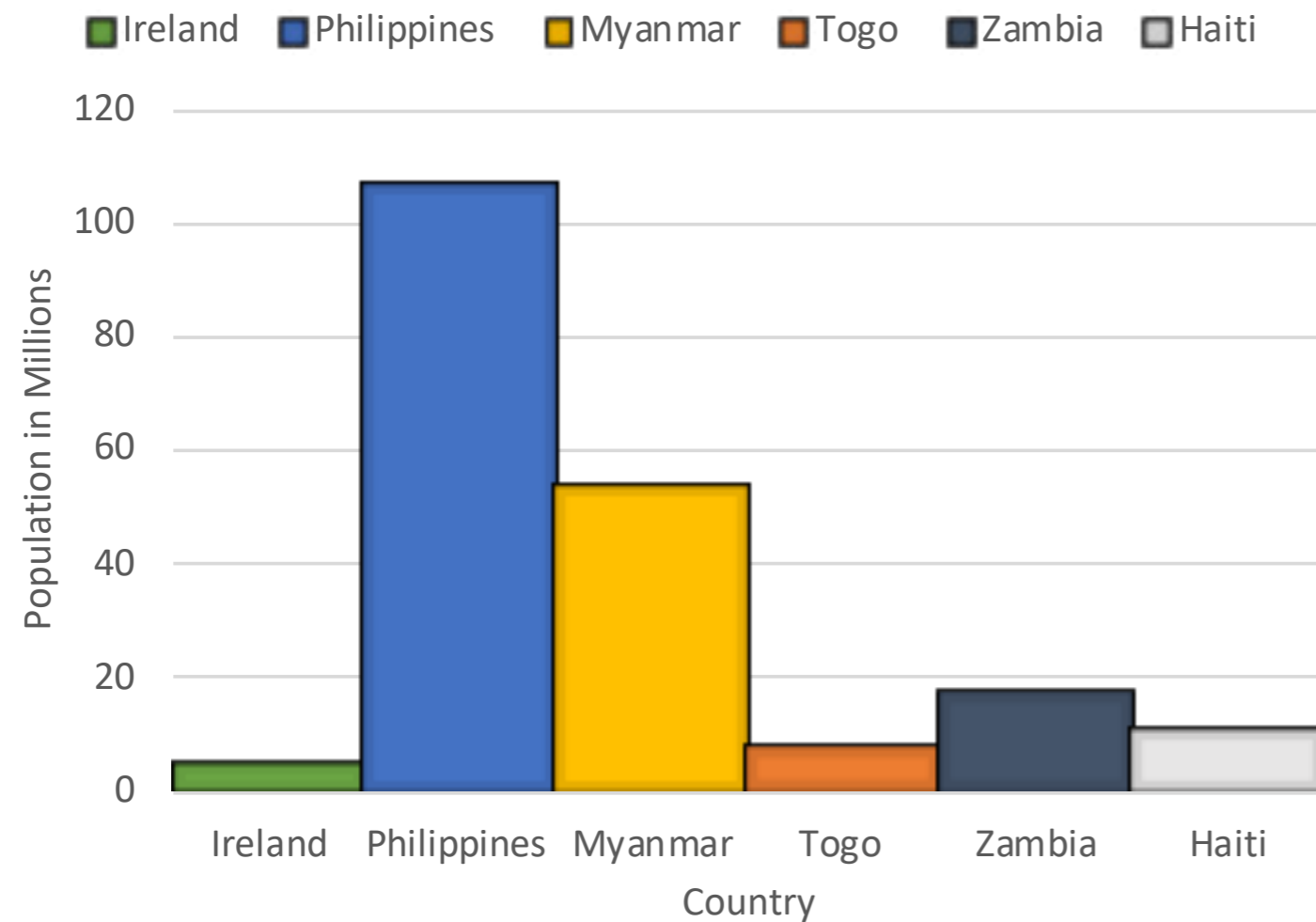
CLIMATE CHANGE: **HOW** MUCH ENERGY DO WE USE?

LESSON 4

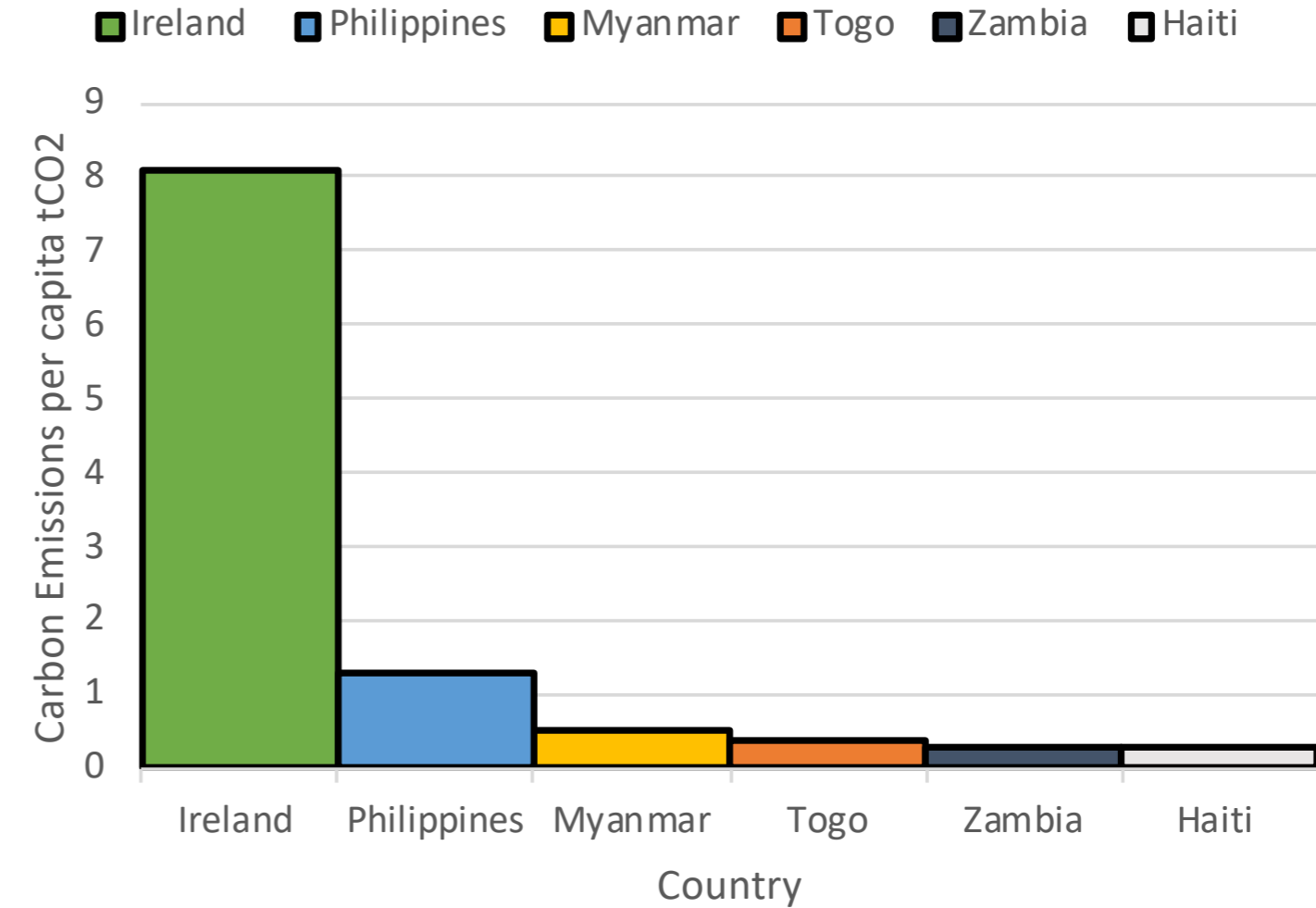
Energy Consumption – A worldwide view

Energy Consumption

POPULATION



CARBON EMISSIONS PER CAPITA



**REFLECTION
TIME...**

CLIMATE CHANGE