

**Team Vesuvius task sheet**

**Equipment:**

- Piece of graph paper
- Atlas
- Six coloured pencils
- Data table
- Pencil
- World map sheet
- Ruler

**Task 1:**

- a. Use the information from the data table to complete a scatter graph titled:  
**A graph to show energy consumed against development**
- b. X axis = Human Development Index (HDI)
- c. Y Axis = Energy consumed (Tonnes oil equivalent)
- d. You will need to work out a suitable scale for your graph and plot the points for all of the countries.

**Extension task:**

- a. Can you draw a line of best fit?
- b. Is the correlation positive, negative or shows no correlation?

**Task 2:**

- a. On your world map, produce a choropleth map to show the pattern of energy use around the world.
- b. Label all of the countries from the table.
- c. Choose six colours and colour in the key at the bottom of the map.
- d. Use the information from your table to colour the countries the correct shade according to how much energy they use.
- e. If you finish, use information from your atlas to find more values for other countries, so you can get a more comprehensive pattern.

**Task 3:**

Use your graph and the choropleth map you have created to write a paragraph to describe the link between energy use and wealth. Can you give at least two reasons (explain) why this link may exist.

### Team Etna task sheet

#### Equipment:

- Piece of graph paper
- Data table
- World map sheet
- Atlas
- Pencil
- Ruler
- Six coloured pencils

#### Task 1:

- a. Use the information from the data table to complete a scatter graph:

**A graph to show energy consumed against development.**

- b. X axis = Human Development Index (HDI) [ten squares long, going up in 0.1, up to 1.0]  
c. Y Axis = Energy consumed (Tonnes oil equivalent) [nine squares long, going up in 1, up to 9]  
d. Plot the points for all of the countries.

#### Extension task:

- a. What is a line of best fit?  
b. Can you draw one?

#### Task 2

- a. On your world map, produce a choropleth map to show the pattern of energy use around the world.  
b. Label all of the countries from the table.  
c. Choose six colours and colour in the key at the bottom of the map.  
d. Use the information from your table to colour the countries the correct shade according to how much energy they use.

#### Extension task:

If you finish, use information from your atlas to find more values for other countries, so you can get a more comprehensive pattern.

#### Task 3:

Use your graph and the choropleth map you have created to write few sentences to describe the link between energy use and wealth.

### Team Pinatubo task sheet

#### Equipment:

- Piece of graph paper
- Atlas
- Six coloured pencils
- Data table
- Pencil
- World map sheet
- Ruler

#### Task 1

- Use the information from the data table to complete a scatter graph on your pre-drawn axes.
- Plot the points for all of the countries.

#### Extension task:

- What is a line of best fit?
- Can you draw one?

#### Task 2

- On your world map, produce a choropleth map to show the pattern of energy use around the world.
- Label all of the countries from the table. Some of the lines have been drawn for you.
- Choose six colours and colour in the key at the bottom of the map.
- Use the information from your table to colour the countries the correct shade according to how much energy they use.

#### Extension task:

If you finish, use information from your atlas to find more values for other countries, so you can get a more comprehensive pattern.

#### Task 3:

Use your graph and the choropleth map you have created to complete the following sentence:

**As the wealth of a country increases, the amount of energy consumed goes *up / down* (circle the correct word).**

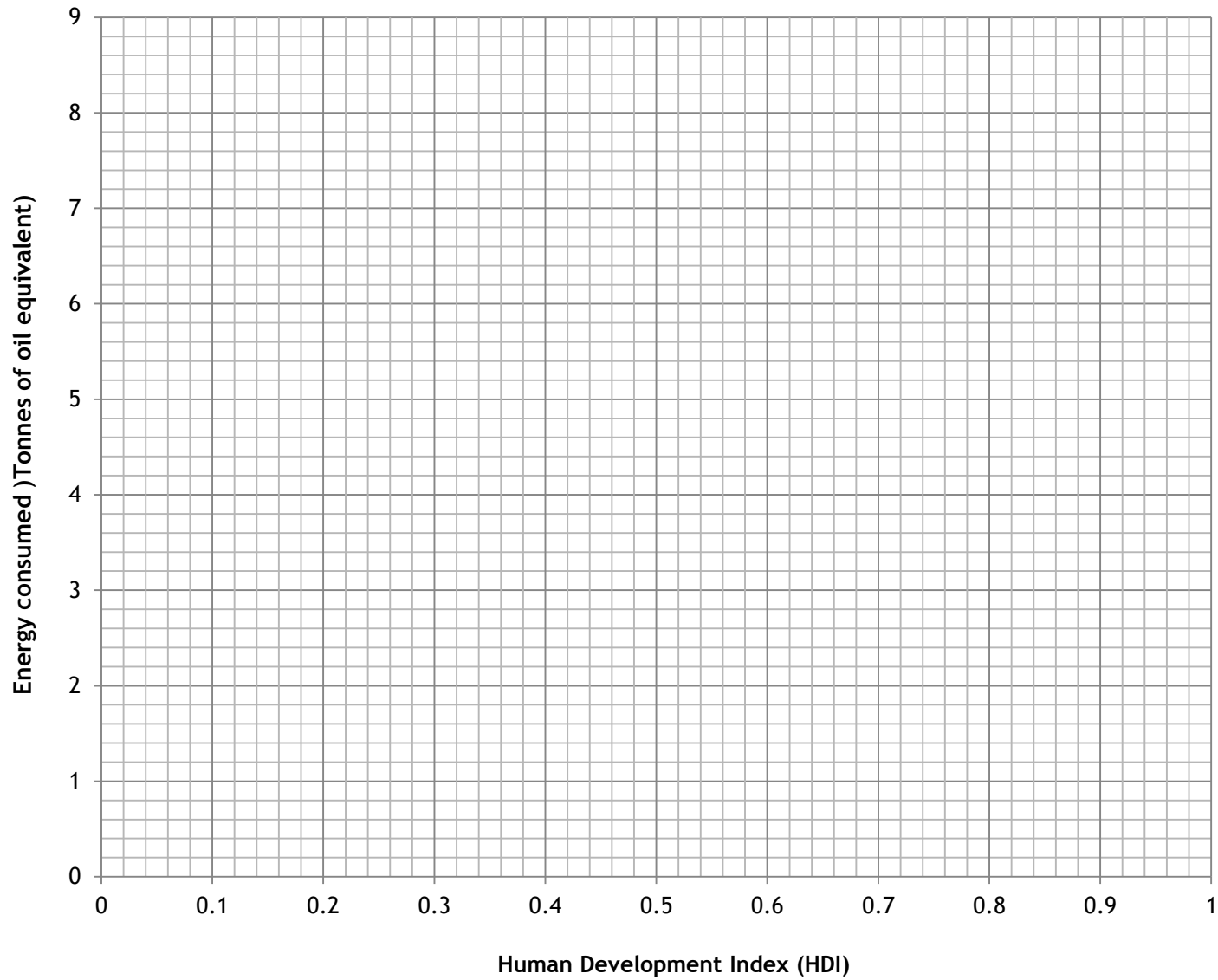
- Give a couple of examples to confirm this statement.

## How does energy use link to wealth?

Data table to use for graph and choropleth map

Country	Continent	Energy consumed (tonnes of oil equivalent)	Human development Index (HDI)
Afghanistan	Asia	0.01	0.349
Angola	Africa	0.4	0.403
Bangladesh	Asia	0.14	0.469
Chad	Africa	0.01	0.295
Ethiopia	Africa	0.04	0.308
India	Asia	0.43	0.519
Guatemala	N. America	0.4	0.560
Sweden	Europe	6.13	0.885
UK	Europe	3.83	0.849
USA	N. America	8.19	0.902
Slovak Republic	Europe	3.68	0.818
Malta	Europe	2.62	0.815
Ireland	Europe	4.15	0.895
Iran	Asia	3.08	0.702
Malaysia	Asia	2.43	0.744
Jamaica	S America	1.35	0.699

Team Pinatubo: A graph to show energy consumed against development.



Team Vesuvius and Team Etna: Map to show global energy use (Tonnes oil equivalent per capita)



Less than 1



1 - 2.9



3 - 4.9



5 - 6.9



7 - 8.9



9+

Team Pinatubo: Map to show global energy use (Tonnes oil equivalent per capita)

