**Comparing the carbon footprint of transportation – worksheet**

**Carbon footprint and Speed Data**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Walk** | **Bike** | **Bus** | **Car** | **Train** | **Plane** |
| **Speed, mph** | 3 | 15 | 50 | 50 | 125 | 560 |
| **Carbon footprint**  **(g CO2 /mile)** | 0 | 0 | 65 | 106 | 25 | 158 |

**For each of the following journeys, calculate:**

A. The journey time using each method of transport. Which is the fastest?

(Note: aircraft must add **3** hours to the time for each journey for boarding at the airport).

B. The carbon footprint for each method of transport. Which is the highest?

C. Recommend which transport method would be best for the environment and the users.

**The journeys:**

1. London to Glasgow (400 miles)

2. Swansea to Derby (180 miles)

3. Glasgow to Penzance (550 miles)

4. Brighton to Newcastle (350 miles)

5. Sheffield to Edinburgh (260 miles)

Hint: create a table like this to work out your answers for each journey:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Transport** | **Distance**  **(miles)** | **Speed (mph)** | **Time taken**  **(distance / speed)** | **Carbon footprint**  **(kg CO2)** |
| **Walk** | 400 | 3 | 133 hours | 0 |
| **Bike** |  |  |  |  |
| **Bus** |  |  |  |  |
| **Car** |  |  |  |  |
| **Train** |  |  |  |  |
| **Plane** |  |  |  |  |

*Note: data on transport speeds presented above is solely for the purpose of this activity and may not be an accurate reflection of actual current times*