I. Vocabulary Preview Instructions: Individually, write down a prediction about what each word means. Then we will discuss the words as a class.

|  |  |  |
| --- | --- | --- |
|  | Prediction of Meaning (individual) | Discussion of Meaning (as a class) |
| 1 | Efficiency | Ratio of work done by a machine to the energy supplied to it (in percent).100 J input -> 30 J work and 70 J heat30% efficient |
| 2 | Conventional | Ordinary |
| 3 | Conventional car | A gasoline-powered car (with a combustion engine). |
| 4 | Electric Vehicle (EV) | A car that uses an electric motor for propulsion. Energy comes from a battery that is charged by electricity from the grid or from solar panels. |
| 5 | Greenhouse gas | A gas that absorbs infrared radiation emitted by the Earth and reflects it back to Earth: CO2, methane, O3, N2O |
| 6 | Well to Tank Efficiency | Efficiency of fuel production and delivery of the fuel to the vehicle. For an electric car, this is the efficiency of the power plant used to generate electrity. |
| 7 | Tank to Wheel Efficiency | Efficiency of fuel usage in the vehicle |
| 8 | Well to Wheel Efficiency | Efficiency of the overall process from fuel production to usage. Can be found by multiplying the other two efficiencies together. |