**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

|  |  |  |  |
| --- | --- | --- | --- |
| **Item** | **Significant gaps** | **Some guessing** | **Great command** |
| Across weeks – as a thermodynamic surface (#1) |  |  |  |
| Across weeks – as a thermodynamic surface (#2) |  |  |  |
| Across weeks – as a thermodynamic surface (#1) |  |  |  |
| Across weeks – as a thermodynamic surface (#2) |  |  |  |
| Across weeks – as a thermodynamic surface (#3) |  |  |  |
| Across weeks – Thermo matching (#1) |  |  |  |
| Across weeks – Thermo matching (#2) |  |  |  |
| Across weeks – Thermo matching (#3) |  |  |  |
| Across weeks – Thermo matching (#4) |  |  |  |
| Across weeks – Thermo matching (#5) |  |  |  |
| Across weeks – Thermo matching (#6) |  |  |  |
| Across weeks – The Box |  |  |  |
| Weeks 4 & 14 – Heat capacities and vibrational motion (#1) |  |  |  |
| Weeks 4 & 14 – Heat capacities and vibrational motion (#2) |  |  |  |
| Week 6 - Applying the 1st law (#1) (**x2**) |  |  |  |
| Week 6 - Applying the 1st law (#2) |  |  |  |
| Week 6 - Heat capacities and energy (**x2**) |  |  |  |
| Week 6 – Compressing an ideal gas (#1) |  |  |  |
| Week 6 – Compressing an ideal gas (#2) |  |  |  |
| Week 7 – Interpreting thermodynamic surfaces |  |  |  |
| Week 7 – The adiabatic J-T experiment |  |  |  |
| Week 7 – Corresponding states |  |  |  |
| Week 8 - |  |  |  |
| Week 9 – Expansivity and compressibility (#1) |  |  |  |
| Week 9 – Expansivity and compressibility (#2) |  |  |  |
| Week 9 – Phase diagrams |  |  |  |
| Weeks 10 & 11 – Entropy and the 2nd Law (#1) |  |  |  |
| Weeks 10 & 11 – Entropy and the 2nd Law (#2) |  |  |  |
| Week 12 – thermodynamic surface (#1) |  |  |  |
| Week 12 – thermodynamic surface (#2) |  |  |  |
| Week 12 – Chemical potentials (#1) |  |  |  |
| Week 12 – Chemical potentials (#2) |  |  |  |
| Week 13 – non-PV work |  |  |  |
| Week 14 – Matching thermophoresis to |  |  |  |
| Week 14 – and temperature |  |  |  |
| Week 14 – Derivation of (#1) |  |  |  |
| Week 14 – Derivation of (#2) |  |  |  |
| Week 14 – Derivation of (#3) |  |  |  |