## Charles' Law

How Temperature is related to volume for a constant mass and pressure of gas.

| Temperature $\left({ }^{\circ} \mathrm{C}\right)$ | 0 | 20 | 40 | 60 | 80 | 100 |
| :---: | :--- | :--- | :--- | :--- | :--- | :--- |
| Length of air Column(cm) |  |  |  |  |  |  |
| Proportional to volume | 20 | 21.5 | 22.9 | 24.4 | 25.9 | 27.3 |
| Use these figures to show a relationship! |  |  |  |  |  |  |

## Pressure Law

How Temperature is related to Pressure for a constant mass and volume of gas.

| Temperature $\left({ }^{\circ} \mathrm{C}\right)$ | 0 | 20 | 50 | 80 | 100 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Pressure (kPa) | 93 | 100 | 110 | 120 | 127 |
| Use this to show a relationship! |  |  |  |  |  |

## Boyle's Law

How Pressure is related to volume for a constant mass and temperature of gas.

| Pressure (kPa) | 100 | 111 | 125 | 143 | 167 | 250 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| volume of air column $\left(\mathrm{cm}^{3}\right)$ | 50 | 45 | 40 | 35 | 30 | 20 |
| Use the results to show a relationship |  |  |  |  |  |  |

