Here are some blank charts for student groups to use for their own made up data..

| Time elapsed (t) | Average speed (s) | Falling speed (s) | Distance (d) | Height (h) |
| :---: | :---: | :---: | :---: | :---: |
| Secs from drop | from drop to now | at that instant | fallen | at that instant |
| 0 sec | xxxx | $0 \mathrm{ft} / \mathrm{sec}$ | 0 ft | (you choose) |
|  |  | $\mathrm{ft} / \mathrm{sec}$ |  |  |
|  | $\mathrm{ft} / \mathrm{sec}$ |  |  |  |
|  |  | $\mathrm{ft} / \mathrm{sec}$ | ft | ft |
|  |  | $\mathrm{ft} / \mathrm{sec}$ | ft | ft |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  | ft |  |

Begin to fill in the above table by making up your own initial height (you choose - upper right) from which to drop a pebble and making up the time (you choose - lower left) that it takes to fall to the ground.

Calculation \# 1: Average speed during the entire fall is total distance fallen that you chose divided by total time of fall that you also chose.
Calculation \# 2: Speed at which the object strikes the ground is twice the average speed found in calculation \# 1
Calculation \# 3: The gravitational constant is the speed at which the object strikes the ground divided by the total falling time that you chose above. $\quad \mathrm{a}=$ $\qquad$

Now you can fill in a chart from scratch. Make sure you have the proper units in each block.

| Time elapsed (t) | Average speed (s) | Falling speed (s) | Distance (d) | Height (h) |
| :---: | :---: | :---: | :---: | :---: |
|  | from drop to now | at that instant | fallen | at that instant |
| 0 | xxxx | 0 | 0 |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  | 0 |

