## The Three Sisters-Secondary Numeracy Task

You have inherited this plot in a community garden, and it has been used to grow a Three Sisters Garden, as illustrated. The fee has been paid for this season, and plots rent for $\$ .40$ per square foot.

In the next season, you want to expand the area of your plot by at least $50 \%$. You will use the earnings from this season's harvest to offset the cost of rent and seeds for the coming season.
$\diamond$ Calculate the approximate area of the expanded garden plot.
$\diamond$ Draft the dimensions of the new, expanded plot to allow for the greatest additional number of each plant, guided by the recommended spacing details.
$\diamond$ Determine the number of additional plants
 of each type you can add in the expansion.
$\checkmark$ Next season, how much will you spend on rent of the larger plot and the purchase of seeds, plus GST, in addition to using this season's earnings?

| Three Sisters | Seed Cost |  |  | Harvest <br> Yield per <br> Plant | Market Sales Earnings |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Single | Bulk |  |  |  |  |
|  |  |  | Volume |  |  | Volume |
|  | \$ 1.10 | \$ 3.00 | x3 | 2 ears | \$ 0.50 | each |
|  | \$ 0.50 | \$ 5.00 | $\times 10$ | 200 gr | \$ 3.86 | per kg |
|  | \$ 0.85 |  |  | $\left.\begin{gathered} 3 \text { squash } \\ (\text { avg } 3 \mathrm{~kg}) \end{gathered} \right\rvert\,$ | \$ 1.20 | per kg |

