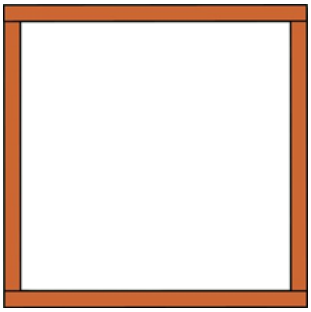
Gladstone Healthy Harbour Partnership Education Resource

Seagrass Coverage, Light Availability and Biomass

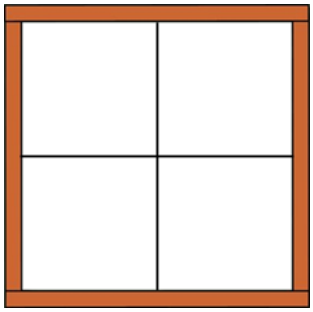
Task One: Build a 20cm by 20cm quadrat by using one of the following methods or researching your own:

- A4 paper/card and cut out the square leaving the boarder like a frame.
- Transparent sheets (OHTs) and print/draw a quadrat square on.
- Build a more substantial quadrat using polypipe and cut four 20cm pieces and thread fishing line through and tie together or use elbow joins.

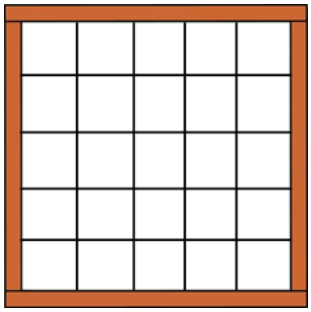
You can subdivide your quadrat to help you estimate percentage of coverage. See the images below for options for subdividing your quadrat.



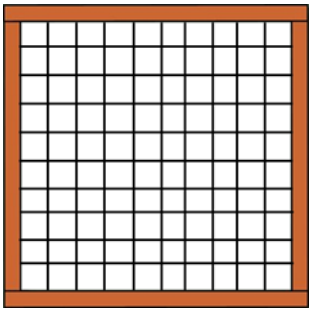
No subdivision
Square = 100%



10cm subdivision
Each square = 25%



4cm subdivision
Each square = 4%



2cm subdivision
Each square = 1%

Task Two: Randomly select 10 different locations around your school (remember your entire school is a seagrass meadow so do not just select 'grassy' areas) and record the following data in the data table.

a) Percentage of grass cover: place your quadrat down in the area and estimate percentage of grass coverage in the quadrat.
b) Coverage type: determine the coverage type using the following definitions based on your percentage of grass cover in a.

Low coverage	Less than 30% coverage
Moderate coverage	30 to 70% coverage
High coverage	Greater than 70% coverage

c) Light availability: determine the light availability in the area using the following definitions and your observation.

High light	Full sunlight throughout the day (ie. middle of the oval)
Moderate light	An area that has mostly sunlight throughout the day but might have small amount of shade during the day (ie. area between buildings/trees)
Low light	Heavily shaded area that may get a small amount of direct sunlight during the day (ie. at the base of large tree)
No light	Either no light or in an area that does not get any direct sunlight during the day (ie. under a building)

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d) Grass composition: determine the grass composition by counting the number of species of grass seen in the quadrat.

Site #	**Site Location/ Name**	**Percentage of Grass Coverage** (%)	**Coverage Type** (low, moderate or high)	**Light Availability** (no, low, moderate or high)	**Grass Composition** (number of species)
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					