Rajwad Primary School

District : Surat

State : Gujarat

Keeping the school clean and green is the mission of our school. Teachers and students are very enthusiastic in our school. We keep our school campus clean and green. Several initiatives have been taken like planting more plants, social awareness by the rally, competition and through the signboards. The entire school campus is divided into separate gardens which are maintained with country tiles. Green elements like rare and useful plants, bird houses, compost pit, Rain water harvesting , air extractors etc are available in our school. The magical 3R's – Reduce, Reuse, Recycle is followed in our school.

શિક્ષણનો અધિકાર

સર્વ શિક્ષા અભિયાન

સૌ ભણે, સૌ આગળ વધે

About school

- School type:-Government
- Authority:-School management committee
- Class:-1th to 8th
- No. of students:-167 no.
- No. of teachers:-8 nos.

Maintenance team

- Air team
- Water team
- Land team
- Energy team
- Waste team
- Bnadhkam team

Bio diversity

- 75 % of the species in our schools are local which is habitat of birds and insects
- There are number of nests of sparrows, cuckoos, weaver birds , squirrels, field mice etc and grazing animals
- The flowery plants like marigold, rose, mogra, hibiscus etc. attract birds, butterfly and others, even it makes our school more beautiful. It helps us for live a botany study

- More than 96 nos of different type of plants and trees are in the campus
- 45% of land covered with plants , shrubs and turf

Kitchen Garden

- Most of the vegetable plants in the school used for cooking. We have plants like drumsticks, chili, fenugreek leaves, brinjal plants, beans etc.
- In currant year, our target is to plant 150 more plant according strength of school
- Waste part of vegetable and plants used in compost
- Most of used for cooking by using smokeless challah and LPG both depend on weather condition

Herbal Garden

- Herbal plants like aloe Vera, rosemary, basil, mint, periwinkle etc
- Herbal plant’s use as a medicine
- We provide our herbal plants to villagers in need
- Students are also aware about the impotence of Ayurveda

Energy

Air Extractor

Sufficient light – ventilation in rooms

Solar Panel

Waste Management

- Waste tyres used for plantation
- Compost pit
- Waste segregation is mandatory in our school
- Waste bottles and tins are used for bird feeder & drip irrigation
- Waste country tiles & bricks are used as a garden periphery

Minimise Heat Exposure to Sun

Different types of trees/ saplings are planted in the campus area

Nearly **36 trees along with 97 shrubs** and small saplings to cover the paved area

Total non-roof area: 3525.83 Sq. m

Area covered with trees: 1821.00 sq. m

Re-cycle & Re-use of water

- At present 300 ltr/day water reuse in kitchen garden & over all 65% reused recycled water per day
- Total rain water available for Harvesting = 1884587 lit
- Total rain water actually harvested = 1801850 lit
- % of run-off volume harvested roof & non-roof = 95.60 %

Low cost Drip irrigation & Sprinkler

- We are using plastic bottle for drip irrigation
- Sprinkler irrigation is also available

School initiatives

- Green massage to society with discussion & rally
- Donating herbs from urban garden to Aayurvadik clinic Bhamiya
- Gives re-used books to students in need
- Collecting grain on every Friday for bird feeding and further gifted to people in need

Achievements

GRAM KALA MAHOSTSAV BALVARTA 2 ST PRICE

SHALA SWACHHATA YEAR 2016-17

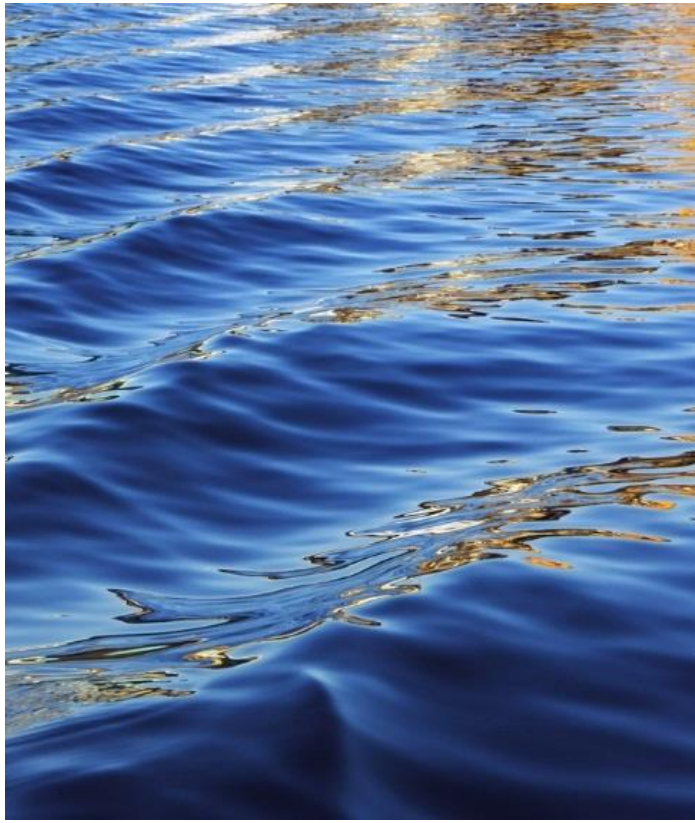
GRAM KALA MAHOSTSAV LOCNRUTYA 2 ST PRICE

GRAM KALA MAHOSTSAV LOCNRUTYA 1 ST PRICE

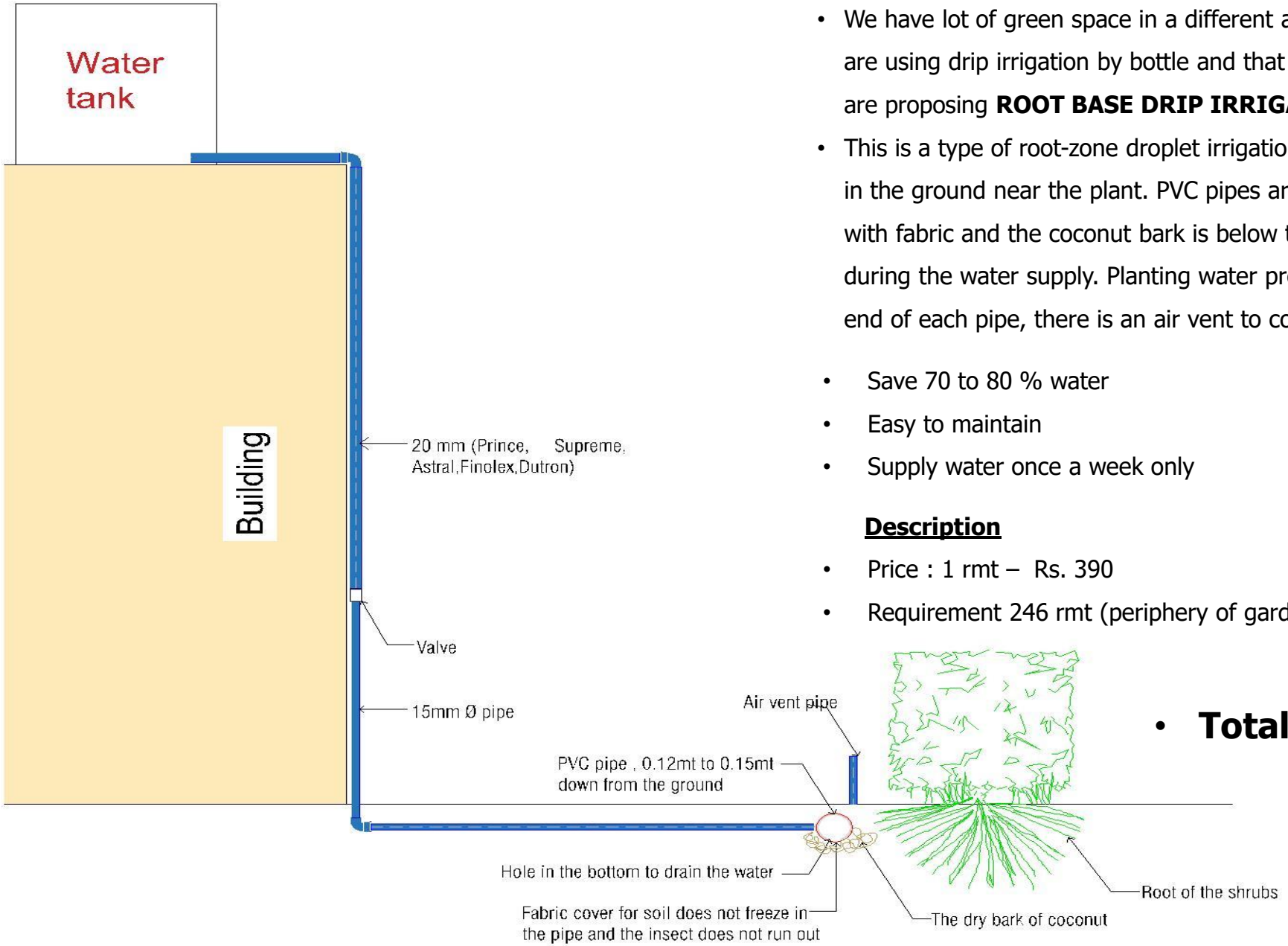
GRAM KALA MAHOSTSAV RANGOLI 2 ST PRICE

Action points

As per school requirements



No. 1 – Root base drip irrigation



- We have lot of green space in a different areas so it is difficult to provide water. We are using drip irrigation by bottle and that it is time taking to pour the bottle. So we are proposing **ROOT BASE DRIP IRRIGATION**.
- This is a type of root-zone droplet irrigation. In this system, the PVC pipe is buried in the ground near the plant. PVC pipes are drilled at a certain distance, covered with fabric and the coconut bark is below the pipe so that the soil does not harden during the water supply. Planting water provides nourishment to the plant. At the end of each pipe, there is an air vent to control water pressure and avoid air bobble.

- Save 70 to 80 % water
- Easy to maintain
- Supply water once a week only

Description

- Price : 1 rmt – Rs. 390
- Requirement 246 rmt (periphery of garden and recreation area)

- **Total amount – Rs. 95,940/-**

No. 2 – Pebble Pathway With Stepping stone

- We have unpaved walkway connecting to play ground so we are proposing pebbles and stepping stone on it
- Pebbles paving helps percolation of water, regular acupressure, stepping stone will be used for learning with game
- Material proposed PCC , sand, pebbles, stepping stone – kota stone

Description

- Hard p.c.c. : 47.00 L X 1.50 W X 0.10 H= 7.05 cmt
- (a) 7.05 X 2197.76 : Rs. 15494
- Pebble Paver : 47.00 x 1.50 = 70.50 smt
- Per Sq.mt : Rs. 674.00
- (b) 70.50 smt rate 47517
- Stepping kotah stone 2'0" x 2'0" : 250 Rs per piece
- (c) Total nos of stone : 20 X 250 : Rs. 5000
- Labour cost appx. : Rs. 6500
- Total : a+b+c : Rs. 74511

Total amount – Rs. 74511 /-

No. 3 – Plant an Extinct species

- According to a report published in the scientific journal, 'Science,' between 22% and 47% of the world's plant species are endangered
- So we are planning to plant the species according to Gujarat climate

Shimado tree

Endangered Plants in Gujarat

- **Shimado tree :** Commonly known as red silk cotton tree. The plant has beautiful pink silk rose. The tropical tree has a straight tall trunk and its leaves are deciduous in winter. Red flowers with 5 petals appear in the spring before the new foliage. It produces a capsule which, when ripe, contains white fibres like cotton. Its trunk bears spikes to deter attacks by animals. Although its stout trunk suggests that it is useful for timber, its wood is too soft to be very useful. In a Ayurveda, it is use for hard skin warts.
- **Polygala irregularis** Gujarat (rare) : Source Commonly known as milkwort, this plant is both an annual and perennial herb. The flowers are found in blue, off-white, pink, and white. The plants have been destroyed to make room for human habitats and use land for agriculture. The root and aerial parts of the plant contain triterpenoid saponins which promote the clearing of phlegm from the bronchial tubes and so is a valuable herb for the treatment of respiratory problems such as chronic bronchitis, bronchial asthma and convulsive coughs such as whooping cough.
- **We have requested nearer forest department to provide such endangered species so that we can plant and promote them**

(Polygala) Milkwort

Total amount – 0.00

**** planning to plant as more as can possible*

No. 4 – Cycle stand with PVC sheet

• Rajwad school is locate in the center of the village so it is easy approachable by staff and students by walk or by cycle.

- Total strength :- 197
- No of students used bicycles: 17 (8.62%)
- No of students preferred walking : 165 (83.75%)
- 20 Nos of cycle parking is purposed
- This cycle stand is a multi purpose stand which can be used as low height seating when the cycles are not parked

Description

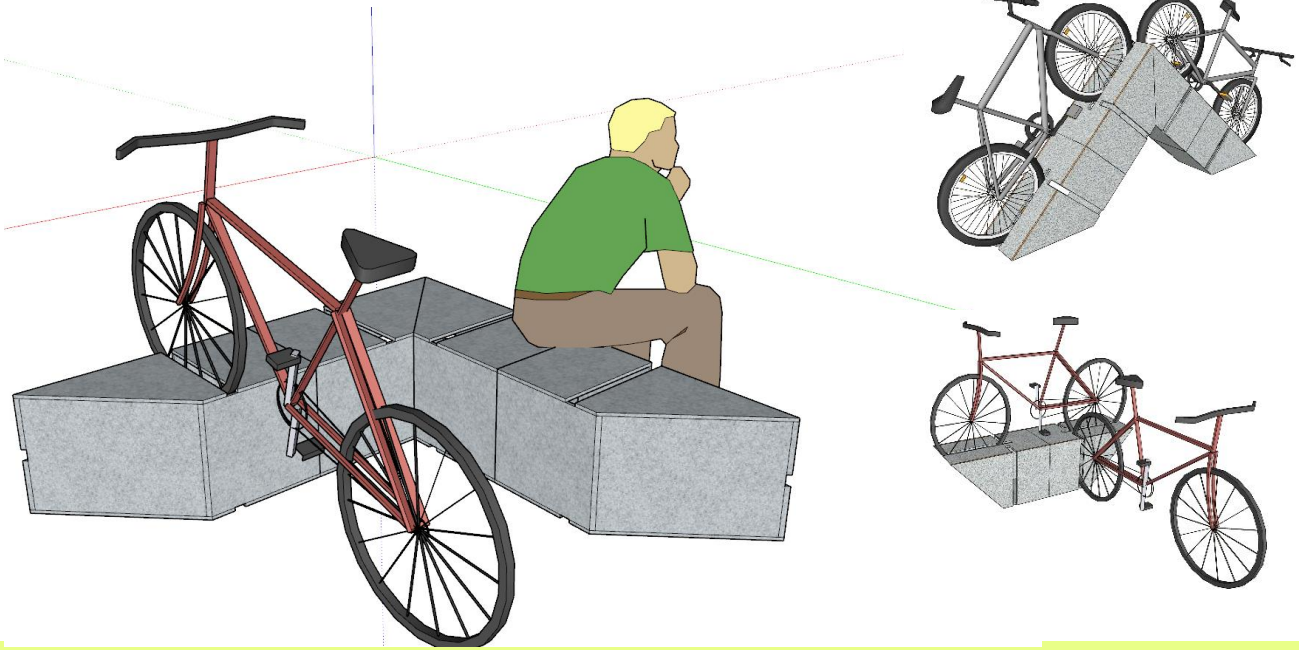
- 1 unit : space for 2 bicycle parking and 3 nos seating
- Size per unit : 1.60mt X 0.40mt X 0.40mt
- Plastic Plain PVC Furniture Board, Size : 8'0" X 4'0" , Thickness: 5 To 18 mm

  Prize : 55 per sq.ft. : per sheet Rs. 1980

  Req. sheet for 1 unit : 1.5 sheet

  Total : Rs. 1980 X 1.5 nos : Rs. 2970

  Req. as per 10 nos parking : Rs. 29700



Total amount – Rs. 29700 /-

No. 5 – Sand pit in play Equipment area

- Playing equipment like swing, sliders, climbers, bucket swing etc are placed at periphery of ground
- The floor area can injure children while playing
- We have proposed sand pit which is ideal for play area

Description

- Total sand pit area : 52mt L X 9.5mt W X 0.1mt : 49.40cmt
- Sand filing with base PCC 1 cmt : Rs. 635.29
- (a) required area : 49.40 x Rs 635.29 : Rs 31383.33
- (b)Total periphery : 52 rmt

  Per rmt : Rs. 417 (brick, mortar, paint)

  Total periphery : Rs. 21684
- Total : a + b : Rs. 53067

Total amount – Rs. 53067 /-

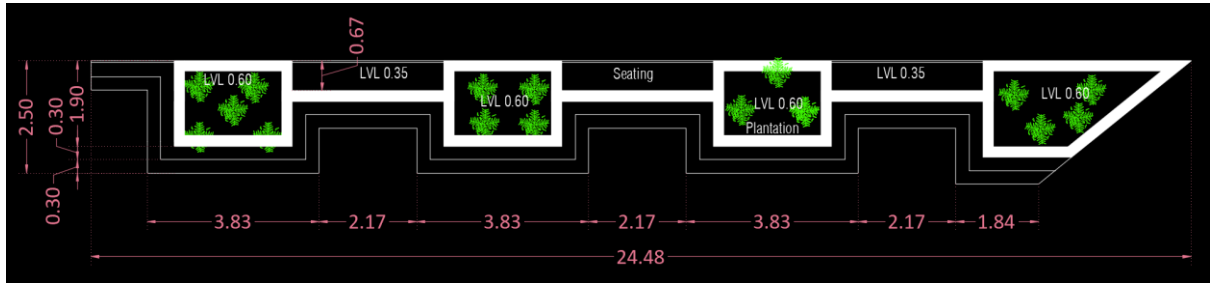
No. 6 – Amphitheater cum flower bed

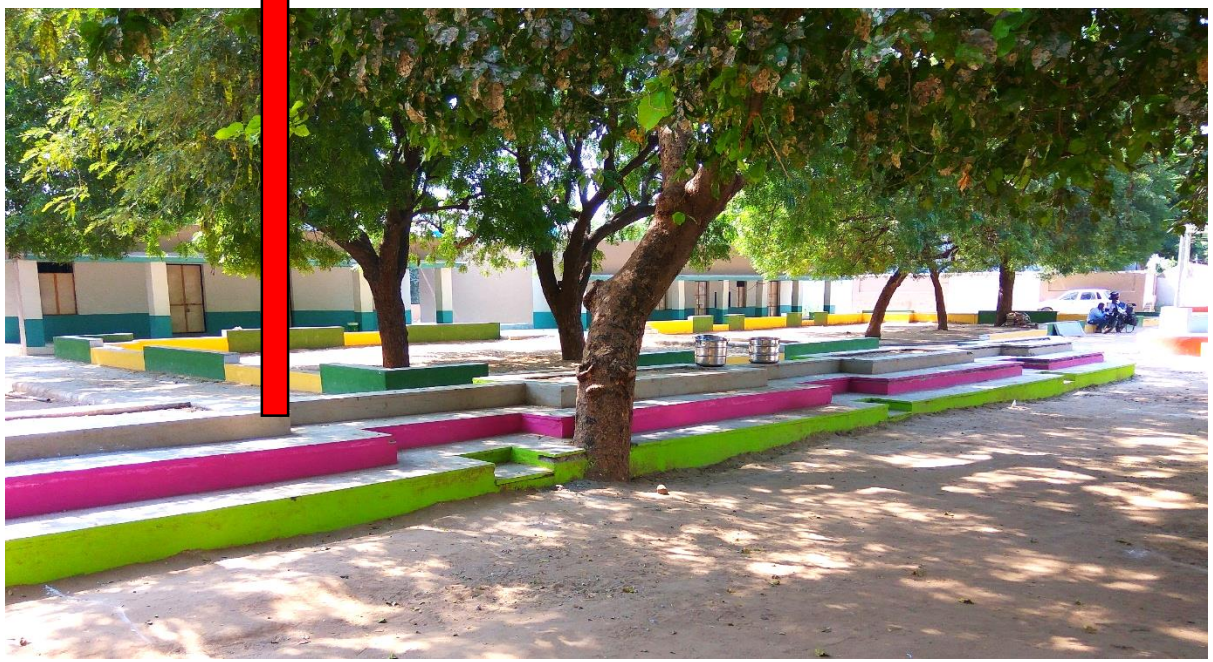
- In garden area there is no sufficient seating so we have planed Amphitheatre cum low height seating cum flower bed as shown in the picture. This way we can provide a multi purpose element on which children can use this seating and their face will be towards the play area

Description

- Total sand pit area : 24.48mt L X 2.50mt W X 0.60mt ht
- Excavation : 6.39cmt X Rs. 67.96: Rs. 434.26
- Brick work : 14.10cmt X Rs. 2554.29 : Rs. 36015.49
- Cement concrete : 3.20cmt X Rs. 2183.62 : Rs. 6987.58
- Kotah stone : 48.14smt X Rs. 985.87 : Rs. 43127.18
- Total amount : Rs. 86564.52
- Say : Rs. 86600

Total amount – Rs. 86600 /-



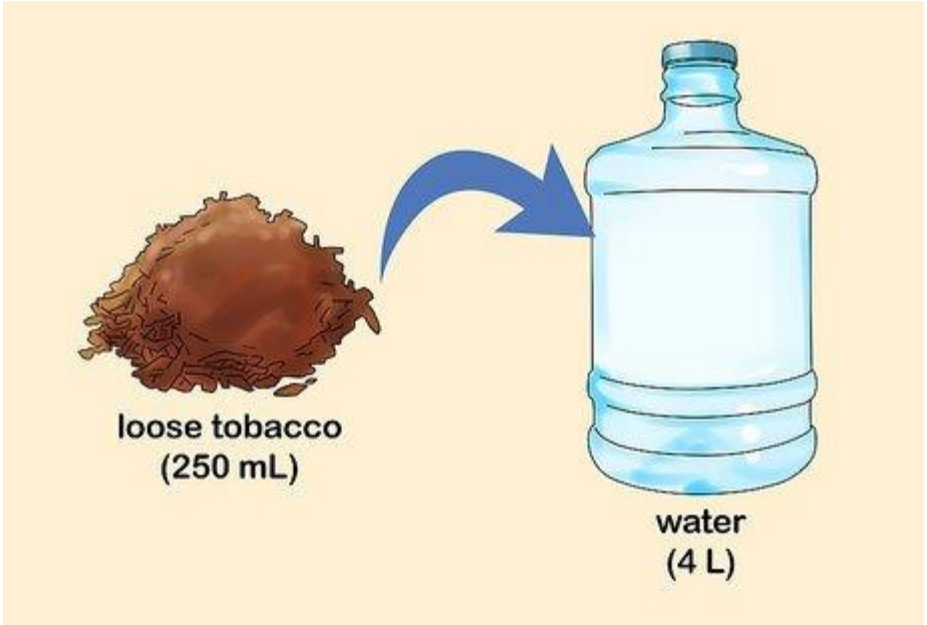


No. 7 – Bio Pesticides

- We have lot of greenery in our school so there is more possibility of insects / fungus , so we suggest herbal pesticides like Tobacco, red chilli with garlic or onion, dish wash with neem oil, orange peel with warm water, fly-ash spray etc
- Tobacco spray was once a commonly used pesticide for killing pests, caterpillars, and aphids

Using Tobacco

- **Mix 1 cup (250 milliliters) of tobacco into 1 gallon (4 liters) of water.** Tobacco is useful in targeting caterpillars, aphids, and worms, but it is not safe to use on peppers, tomatoes, eggplants, or any member of the solanaceous plant family
- **Sit the mixture out in the sun or in another warm location.** Allow it to rest for 24 hou
- **Check the color of the mixture.** Ideally, the pesticide will look similar to the hue of a light tea. If it is too dark, dilute it with water. If it is too light to see, allow it to sit an additional few hou
- **Add 3 tablespoons (45 milliliters) of mild liquid dish soap to the solution.** Mix thoroughly.
- **Pour the mixture into a large squirt bottle.** Shake the solution inside the bottle once more to combine it further.
- **Spray the infested plants.** Focus on areas that show the most damage, but also cover spots that still seem in good condition.



Description

- Tobacco 20kg : Rs. 1000
- Garden pump sprayer : Rs 365 per piece

  4 nos pump : 4 X 365 : Rs 1460
- Total : Rs. 1460 + Rs. 1000 : 2460 for 4 litre pesticides

Total amount – Rs. 2460 /-

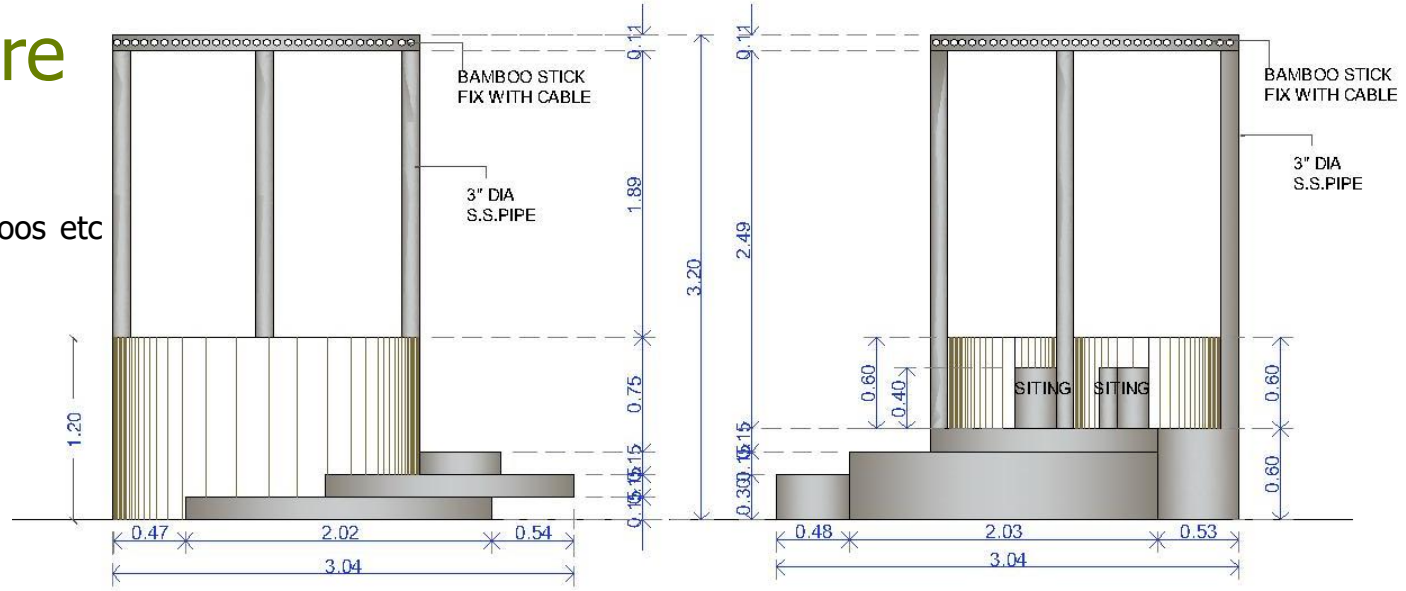
No. 8 – Gazebo cum activity centre

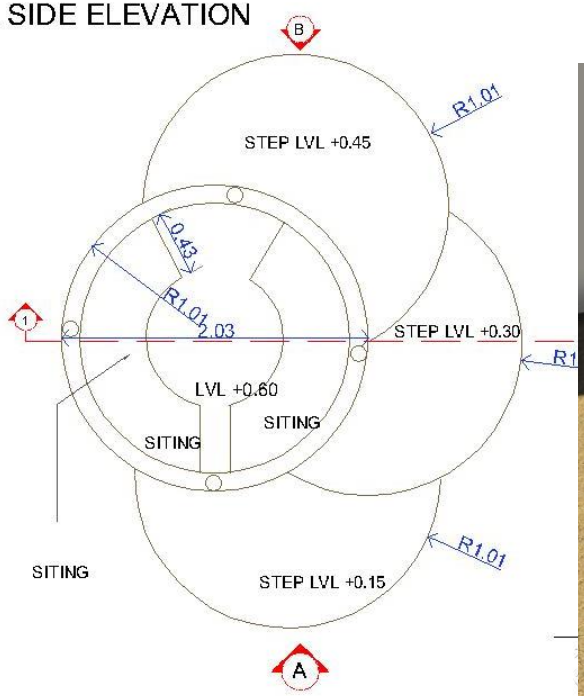
- We are proposing Gazebo for various activities
- The main material used in gazebo are bricks, cement, M.S. pipe, bamboos etc along with climbers
- The seating will be at different level for different age children

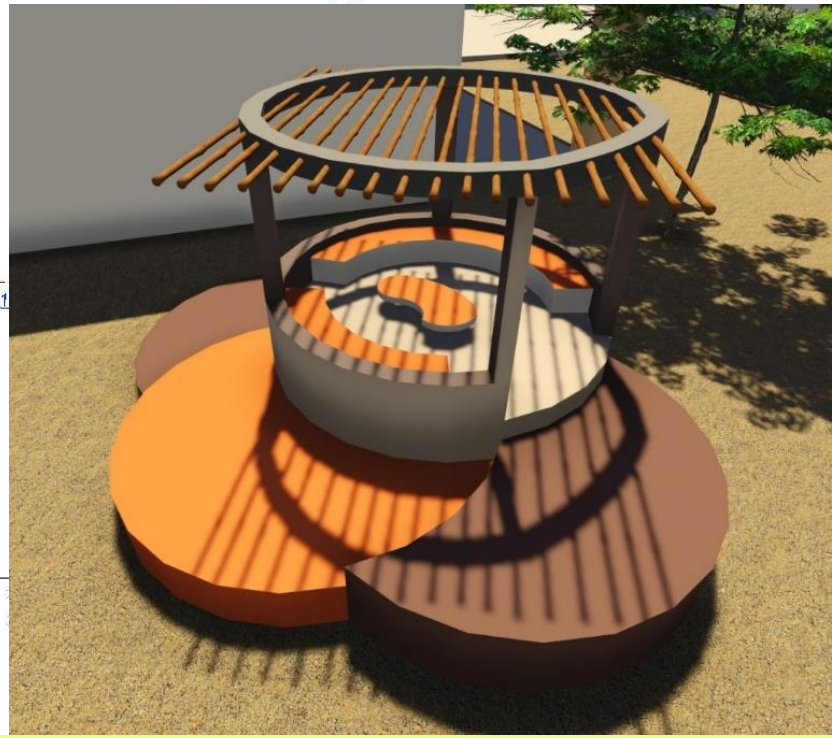
Description

- Total size : 3.04 mt X 3.78 mt X 3.20 mt
- Excavation : 4.04 rmt X Rs. 67.96 : Rs. 274.56
- Brick work : 3.71 cmt X Rs. 2554.29 : Rs. 9476.42
- Concreting : 2.15 cmt X Rs. 2183.62 : Rs. 4694.78
- R.C.C. Column : 0.28 cmt X Rs. 6485.21 : Rs. 1815.86
- Plaster : 14.41 smt X Rs. 139.17 : Rs. 2005.44
- M.S. pipe : 163.81 kg X Rs. 64.28 : Rs. 10529.71
- Primer : 7.73 smt X Rs. 55.73 : Rs. 430.79
- Kotah stone : 9.08 smt X Rs. 895.87 : Rs. 8134.50
- Bamboos : 20.20 rmt X Rs. 100 : Rs. 2020.00
- Paint : 14.41 smt X Rs. 65.65 : Rs. 946.02
- Total : Rs. 40328.07

Total amount – Rs. 40400 /-





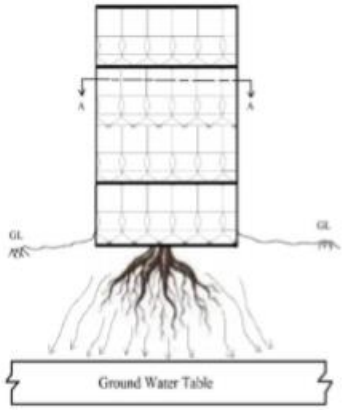


No. 9 – Waste Bottle Tree Guard

- Use of waste plastic bottles, waste cycle rims, waste steel rods of size 42” appx. & waste rubble strips
- Series of 5 waste bottles is interconnected by making a hole in bottom part of bottle of diameter such that the mouth of bottle is inserted into that hole

Description

- 8mmØ Steel rod 42” , 8nos : Rs. 85
- Plastic bottle 150nos : Rs. 200
- Cycle rims 4 nos : Rs. 80
- Rubble packing 10 nos : Rs. 60
- Adhesive : Rs. 100
- Red oxide paint : Rs. 90
- Total cost of per units : Rs. 615
- For 20 nos : Rs. 615 X 20 : Rs. 12300



Side View

CROSS SECTION A-A

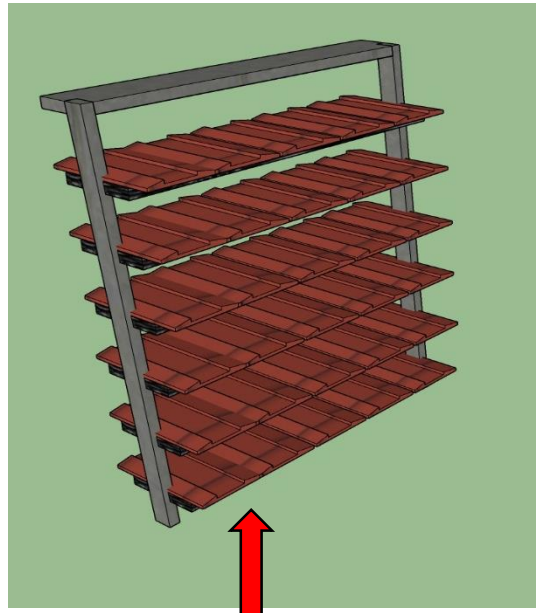
Figure 7: Actual Photographs of Model

Figure 3: Application of Red Oxide Coating on Frame.

Total amount – Rs. 12300 /-

No. 10 – Shoe rack from waste manglore tiles

- We have waste roof tiles and some metal angles of our damaged room So we will convert it into shoe rack
- This shoe rack will be placed in the passage area of the classrooms
- 6 partitions will be provided in each rack



Description

- Size : 1.20 mt X 0.90 mt X 0.30 mt
- Labour per unit : Rs. 1200 approx.
- From stock at least 4 rack will be made : 1200 X 4 : Rs. 4800

Total amount – Rs. 4800 /-

Over all budget for Implementations

No.	Name of Ideas	Investment
1	No. 1 – Root base drip irrigation	95940
2	No. 2 – Pebble Pathway With Stepping stone	74511
3	No. 3 – Plant an Extinct species	0.00
4	No. 4 – Cycle stand with PVC sheet	29700
5	No. 5 – Sand pit in play Equipment area	53067
6	No. 6 – Amphitheater cum flower bed	86600
7	No. 7 – Bio Pesticides	2460
8	No. 8 – Gazebo cum activity centre	40400
9	No. 9 – Waste Bottle Tree Guard	12300
10	No. 10 – Shoe rack from waste manglore tiles	4800
	Total Estimated cost Rs.	**399778**


THANK YOU
Chaudhary Mohinikumari C. : std – 8
Chaudhary Sumitkumar R. : std - 8
Gamit Abhaykumar S. : std - 8
Chaudhary Girishbhai C. : co – ordinate teacher