

Working with Life Forms

7.1. Tool List – Agriculture and Gardening

7.1.1. Tools

S. No.	Item	Specifications	Quantity (for a class of 40 students)
1	Air Thermometer and hygrometer	Thermometer and hygrometer with LCD Portable Digital	1
2	Budding grafting knife	"Two stainless steel blades and one brass budder Comfortable nylon grip (Falcone Brand is best)"	2
3	Drip irrigation unit	16mm Main Supply Pipe 15 metres, 4mm Feeder Line Pipe - 10 meters, 4LPH Drip Emitters - 20pcs, 4mm Pin Connector - 20pcs 5. Emitter Stakes - 20pcs 6. Dummies - 5pcs, Tee Connector - 5pcs, Straight Connector - 10pcs, Elbow Connector - 5pcs, Straight Connector with Tap - 5pcs, End cap - 10pcs, Water Tap Connector, ' S' Hole Puncher, Teflon Tape and Installation Manual	1
4	Pot (Gamla)	4-to-6-inch diameter plastic made	5
5	Hand Hoe (Digging tool)	15 x 10 mm with wooden handle	2
6	Hand Rake	29.5 x 132.5 x 8.5 cm size with wooden handle 4ft long (12 teeth)	2
7	Hand trowel (gardening)	11.5-inch X 2.5 inch with plastic handle	4
8	Home garden hand gloves	Gardening gloves pairs	20
9	Hydroponic tray	HDPE material with dimensions of 2 x 1 ft and height 4 inch having drainage holes on the bottom	1
10	Measuring tape	50-meter measuring tape	1
11	Plastic beaker (for measuring liquids)	250 ml	1
12	Plastic bucket	15 lit capacity buckets	1
13	Plastic pan (Gamla)	Diameter 14 inch	2
14	Scissor	Stainless steel, Size: 200mm	1
15	Secateur	Blade: Stainless Steel Cutting Size: 15mm with lock nut (Falcon Brand)	2

S. No.	Item	Specifications	Quantity (for a class of 40 students)
16	Shovel or Spade	Medium size blade (6-9mm) with maximum 3 ft long handle	2
17	Sickle	Blade length 18 inch with wooden handle and curved blade	4
18	Soil test kit	Small soil test kit with chemicals in tablets form or three way soil testing meter	1
19	Spray pump	Capacity: 2 Ltr. with pressure pump	2
20	Watering can 5 lit	Plastic watering can for plants	2
21	Weeding hook (Khurpi)	curved shape 5-inch size for removing weeds	2
22	Weighing scale	Kitchen grade, multipurpose weighing scale Capacity 2Kg x 10g	1

7.1.2. Consumables

S. No.	Item	Specifications	Quantity (for a class of 40 students)
1	Black jaggery	To be used in organic fertilizers / Fertilizers at Home	1 kg
2	Cocopeat	blocks of 1 kg	2
3	Common edible salt	Kitchen salt	1 kg
4	Cow dung (needs to be collected before the practical)	To be used in organic fertilizers / Fertilizers at Home	2 kg
5	Cow urine (needs to be collected before the practical)	To be used in organic fertilizers / Fertilizers at Home	1 lit
6	Earthworms	For vermicomposting, to be collected prior to practical	As required
7	First aid kit	basic kit having necessary item like bandages, ointment, sanitizer, band aid, cotton roll etc. only	1
8	Grafting tape	Bundle of elastic tape 1 inch width	1
9	Green leaf manuring	(trainer to check within the vicinity of school site)	As required
10	Gunny bag	3 x 2 ft dimension	2
11	Markers (3-4 colours) etc.	Markers (5 each for 3-4 colours)	10
12	Mask	box of 100 masks (disposable)	1 set

S. No.	Item	Specifications	Quantity (for a class of 40 students)
13	Neem leaves	To be used in organic fertilizers / Fertilizers at Home	As required
14	Nursery bags	5x7 inch, 50 microns (250gm)	40
15	Organic compost or fertilizers (optional)	compost/vermicompost	2 kg
16	Plant saplings (Mango, Jamun, Rose, Duranta, Hibiscus, money plant etc.)	for practical of plant propagation	1 each
17	PVC pipe	3-inch diameter and 5 ft long piece	1
18	Rice bran	To be used in organic fertilizers/ Fertilizers at Home	As required
19	Rooting hormone powder	100 gm bottle	1
20	Sand		As required
21	Seeds (To be selected based on the geographical location)	Raw seeds of Maize and Spinach	Maize 250 gm and Spinach 50 gm
22	Soil samples (sand, clay, silt, loam)	It can be collected from the school garden.	As required
23	Sphagnum moss	Dry moss for air layering	250 gm
24	Used Newspaper		As required

7.1.3. Advanced Tools for Specialisation (refer to curriculum)

S. No.	Item	S. No.	Item
1	Automatic shade system	15	Planting board
2	Crowbar	16	Pruning knife
3	Dibbler	17	Radiation measuring instrument
4	Digging fork	18	Rope
5	Digital electric temperature indicator	19	Sprayer
6	Duster	20	Sprinkler
7	Fan	21	Temperature & humidity control system
8	Fogging & Blackout	22	Thinning scissors
9	Garden hatchet	23	Transplanting travel
10	Hand cultivator	24	Trenching hoe
11	Lux/light meter	25	Ventilator
12	Misting	26	Water can

S. No.	Item	S. No.	Item
13	Mobile benches	27	Weeding fork
14	Pad	28	Wheel hoe

7.2. Tool List - Food Production

7.2.1. Tools

S. No.	Item	Specifications	Quantity (for a class of 40 students)
1	Digital Kitchen Balance	ISI Mark with 1 kg capacity	1
2	Dust Pan	Plastic; Size- medium	2
3	Electric/Gas Oven (Optional)		2
4	Frying Pan (medium)- With Handle	Stainless steel with copper bottom - medium size	2
5	Gas lighter	Stainless Steel	2
6	Glass container	Glass with plastic lid - half kg capacity	4
7	Grater/ Shredder	Stainless steel	2
8	Hand Operated Chikki Slicer (Roller), cutter	Stainless steel	2
9	Hindalium container with lid - 3 lit	Hindalium 3 ltr	2
10	Knives	Stainless Steel (Medium size)	4
11	Measuring Mug / Cup	Plastic/ Glass 250ml	2
12	Measuring Spoons	Plastic	2
13	Mixer (Mixture-Grinder)	ISI mark Mixer with two grinding containers 800 W	1
14	Plastic Bucket	Plastic -10 ltr capacity	2
15	Plastic Container	Food grade plastic (Set of 4)	6
16	Plastic Dustbin	Plastic	2
17	Polpat and Latan (Roller)	Wood	2
18	Pressure Cooker	Aluminium 5 Ltr Cooker	2
19	Scissors	1 medium 1 large	2
20	Set of cooking spoon	Stainless steel	2
21	Sieves	Stainless Steel	2

S. No.	Item	Specifications	Quantity (for a class of 40 students)
22	Sieves	Plastic with multiple sieving plates	2
23	Single Burner Stove	ISI Mark with pipe, clip	2
24	Pot Containers	Food grade stainless steel (Containers of 1 ltr and 2 ltr capacity)	2
25	Stainless steel Plates	Stainless Steel	4
26	Steel Bowls	Diameter 6"	4
27	Table Spoons	Stainless steel	12
28	Tong	Steel	2
29	Vegetable Peeler	Stainless steel	4
30	Water Container (Jug)	Stainless steel 1 litre capacity	2
31	Whisker	Stainless steel (any shape & size)	2
32	Pot Lifter	Stainless steel	1

*Existing Home Science Lab may also be leveraged for skill subjects related to this sector.

7.2.2. Consumables

S. No.	Item	Specifications	Quantity (for a class of 40 students)
1	Aluminium foil	Aluminium, 10 metre	2
2	Apron (Cloth)	cotton (14 to 17 years children)	10
3	Dish towels	cotton	6
4	First-aid	general medicines, burn cream and band aids	2
5	Hand Gloves (Plastic)	medium size (Plastic) - For 14 to 17 years children	2
6	Head Caps (Cloth)	20 GSM - For 14 to 17 years children	30