
Light Table

This project uses inexpensive plastic bookshelves and materials available from a hardware store to make a simple light table that can be taken apart and put into a storage container.

Supplies



One 4-shelf plastic bookcase 28"Wx15"Lx 52"H.
3 sets 24" grow lights
6 3/16" x 1 1/2" eyebolts with nuts
One 6-outlet power strip
One 15' medium duty multi-outlet extension cord
106 qt Clear Latch tote
2- 11" cable ties
3 plastic domes
3 flats newly planted seeds
Propagation heating pad for peppers and tomatoes

Home Depot Parts

24" Lithonia Grow Light SKU # 263547 (\$50 ea.)
Workforce HDX Plastic Shelf SKU # 333294 \$26
Sterilite 106-quart Latch Box SKU # 538636 \$16
Viagrow Propagating Seedling Mat \$20

Tools needed

A cordless drill
Bolt cutters

Assembly instructions

Unwrap the shelves. Take one shelf and lay upside down. Write "bottom" on the underside of this shelf. Take a second shelf and lay it upside down. Position a fluorescent light across the bottom of the shelf and center the light along the length of the shelf. Use a marker and place a dot on the shelf underside that lines up with the holes on top of the light. Drill holes in the middle "rib" on the underside of the shelf that are large enough for the eyehooks to go through. Each shelf should have 2 holes for 2 eyehooks. Screw in the eyehooks and secure the eyehooks with the nuts. Repeat with the other 2 shelves.

Assemble the shelves as described in the directions that come with the shelving kit. Attach the lights to the hooks under the shelves with the lengths of chain. The chains that come with the grow lights are fairly long, so cut them to a manageable size. When you attach the lights, point the electrical cords in the same direction. Use the chain to adjust the height of the lights.

Use the cable ties to attach the power strip to the shelf. Position a power strip along the length of one of the legs in the middle of the shelf on the same side of the electrical cords off the lamps. Use 2 cable ties to secure each end of the power strip to the shelf leg. Plug the lights into the power strip.

The ideal place to position the light table is against a wall, near an outlet. It does not have to be near a window since the lights can be on 24/7. Place the heating pad on one shelf and plug it into the extension cord. Plug the power strip into the extension cord. You can use the very top shelf to hold supplies like watering can, potting supplies, etc.

Caring of Seedlings



1. Use seed starter soilless planting mix to start seedlings. The mix must drain easily and not have a lot of fertilizer. The basic recipe is 4 parts sphagnum moss or coir to 1 part perlite and 1 part vermiculite.
2. Place one flat of seeds on each shelf. Water so that the soil is evenly moistened but not soggy. Place the plastic domes over the plants. The lights should be placed right above the plastic domes.
3. Monitor the plants on a daily basis, but you may not need to water them until the seeds germinate, approximately 4-10 days, depending on the plant.
4. Once the plants have one set of true leaves, remove the domes. If you notice any mold or algae on the stems, they have too much water or not enough air.
5. Check the seedlings daily and water if necessary. Do not over water. There should *not* be standing water in the bottoms of the flats.
6. If the leaves are wilting or bent over and the soil is dry, the seedlings need water. A common plant failure can occur by underwatering and then overcompensating with too much water.
7. Once the seedlings have two sets of true leaves, they are ready for transplanting. As they grow taller, raise the lights so that they are 2" above the plants.
8. When you transplant seedlings into new pots, use potting soil that has some fertilizer.
9. Before planting the seedlings outside, they must be hardened off. They need to be gradually accustomed to being outdoors. For the first few days, place them outside in the shade for a few hours. Gradually give them a few hours of morning sun. The process will take place over a week. By the last day, they should be exposed to 3-4 hours of full sun.
10. If night temperatures are predicted to be lower than 33, bring the plants inside until all danger of frost has past.

