Building the scene

Model railroading is more than trains. Building a sturdy train table, choosing the right track for your needs, and wiring for flawless operation are important first steps, but it's scenery that brings your railroad to life.

You can take one of any number of approaches to building the foundation for your scenery. Once the ground cover is added, visitors won't know what's underneath unless you tell them or they crawl under the layout and take a peek. We'll look at the two most popular methods: extruded foam insulation board and cardboard strips.

Before you begin, you should have a track plan, either one you've drawn yourself or one that you found in a book or magazine. The track plan tells you not only where the track goes but also the positions of the mountains, rivers, tunnels, and so forth.

Gonna make a mountain
For smaller layouts, the most popular choice for scenery material is foamboard. Extruded foam insulation is the sheet material you'll see glued to basement walls when you drive past houses under construction. It's often pink, but some varieties are also blue, gray, or green, depending on the manufacturer.

Foam insulation board is available at building supply stores. It comes in 4' x 8' sheets but is scored so you can easily snap it to 16" or 24" widths if you have a problem getting it into your car. If you work in construction, know someone who does, or don't mind doing a little dumpster diving, you can often find enough discarded foam at a new home site to supply several layouts. It's better to recycle it into a model railroad than let it be trucked off to fill to a landfill.

You can cut the foam board easily with a handsaw or a saber saw, but the less foam dust you generate the better. When the dust becomes electrostatically charged, it sticks to everything, your clothing and hair in particular. If you use a variable-speed saw, go slowly and you'll create less of this nuisance.

Here's a good tip we picked up from scenery expert Ingrid Drozdak: Spray yourself lightly with anti-static laundry spray before you start cutting, and those crumbs won't be so eager to jump on you.

Build up the foam scenery by gluing layers on top of one another, 1 (page 5). Neatness

Scenery brings your model railroad layout to life. Great model railroad scenery, like this autumn landscape on James EuDaly's O scale layout can be built by even a novice model railroader.
is usually a good habit in model railroading, but foam scenery doesn’t always have to be built up in smooth-flowing layers. The neater you build it, though, the less carving you’ll have to do later on. If you’re building a big mountain, like the one shown in photo 1, try speeding up the cutting process by breaking big pieces of foam over your knees and piling them up on the layout.

Once you’ve cut all your foam—or at least enough of it to get started—you can begin gluing the pieces together. The best adhesive we’ve found is construction adhesive, which come in tubes that you put in a caulking gun. Make sure you buy an acrylic adhesive that’s safe for use on foam, as some types of adhesives will dissolve it.

**Carving foam**

You can shape foam with all sorts of tools. Serrated cake knives work well, but don’t use the one in your kitchen; you’ll never cut cake with it again. Go to the supermarket and buy something inexpensive. Knives work best when you shave off foam about a quarter-inch at a time. You can also do this with a small handsaw.

The best tool for carving foam neatly is a hot-wire cutter; 2. This tool has an insulated handle and an electrically heated wire that melts its way through the material as you guide it along. Woodland Scenics makes a nifty handheld hot-wire tool.

Be aware that cutting foam (except for beadboard) with a hot wire releases noxious fumes. You should always work in a well-ventilated area.

Hot-wire tools do a great job and give you a lot of control, but they work rather slowly. If you try to rush the job, you’ll stretch the wire and perhaps even break it. (Replacement wires are available.) Also, if you go too quickly, the foam surfaces will fuse together behind the wire, and your cut will “heal” itself.

As you work with foam, you’ll discover various knives and tools that work best for you. Coarse sandpaper will get into places you can’t reach otherwise. Foam-rubber sanding blocks work great, as does foam-backed sandpaper.

Once you get the foam shaped to something close to its final form, a good all-around tool for finishing the job is a Stanley Surform plane. It comes in various sizes and configurations and features a perforated working surface with hundreds of cutting edges. The Surform plane is especially good for smoothing a surface that will be receiving foliage.