Figure-eight schemes can be more than just a gimmick. Here, a 5½-inch-high overpass helps keep trains in continuous motion, without the peril of operating through a 90-degree crossing

Room to expand this railroad comes by way of a spur that runs to the edge of the layout. If you have space in the corner of a room, you can easily form an L-shaped pike by adding another 4 x 8-foot board

Scenery and structures for the railroad should fit the mountain railroad theme dictated by the tight-radius curves and changing elevations. Also consider using smaller Plasticville structures to make the most of the limited space

This short industrial spur also provides means for point-to-point operation to the spur situated below. With the addition of a command-control system, you can even consider two-train operation

Lionel FasTrack O-36 curves form the majority of the layout, so it seems logical to develop a layout theme and scenery where sharp curves are expected – a rustic setting in the hills and a busy mine operation are two fitting choices

A 4 percent grade routes trains up, down, and around the curves at each end of the layout. Don't have a computer or slide rule handy to calculate the proper track elevations? Simply use Woodland Scenics' foam incline and riser components

A passing siding doesn't have to be on the straight and narrow. In this instance, I placed a train-length siding along a curve. It's near the outer edge of the layout, so restricted speed operation is a must. Don't forget, you can also use this location to reverse the direction of your train – just be sure to use a locomotive with operating couplers on each end