







**WHAT YOU'LL NEED:** Scissors, Elmer's glue (or a glue stick), a ruler or other straight-edge, 11 toothpicks and a black marker (for removing fold lines, trimming edges and for darkening a few pieces). Tweezers may also be handy to hold small pieces in place while they dry.

**FOLDING TIP:** I recommend 'scoring' the fold lines before folding. You can use an old ink pen, a knitting needle, the end of a paper clip, or any metal object that will make a crease on the fold lines without tearing the paper. Scoring will help you fold much more quickly and precisely.

**ENGINE ASSEMBLY:** We'll begin by building the steam engine. Cut out the CHASSIS on Parts Page 1. Fold the four gray tabs DOWNWARD and then fold all four side panels DOWNWARD, folding along the blue lines. Glue the gray tabs to the adjacent side panels to form a box, as shown in Figure 1.

Cut out the BOILER on Parts Page 1. Cut along the red lines (shown in Figure 2) on both end panels. Fold all of the light gray tabs DOWNWARD. Fold the two end panels DOWNWARD. Fold the two outer side panels UPWARD, folding along the green lines, and then fold DOWNWARD between the remaining side panels, folding along the blue lines. Glue the gray tabs to the adjacent panels to form a cylinder, as shown in Figure 3.

Position the BOILER over the gray area on the CHASSIS as shown in Figure 4. Be sure the front of the BOILER (the decorated end) is facing the front of the CHASSIS (with small wheels) as shown. Glue the two BOILER side panels directly over the matching panels on the CHASSIS.

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Now cut out the CAB on Parts Page 2. Fold the four gray tabs DOWNWARD, fold the gray rectangular bottom panel DOWNWARD, and then fold the top and side panels DOWNWARD, folding along the blue lines. The top panel has an extra outer panel. Fold this panel DOWNWARD along the blue line, and then glue the panel to the back of the CAB piece as shown in Figure 5. Now fold DOWNWARD along the two blue lines on the top panel as shown in Figure 6. Glue the four gray tabs to the adjacent panels. The CAB should now resemble Figure 7.

Put some glue on the back of the BOILER and on the blank black top area of the CHASSIS. Glue the CAB to the CHASSIS and BOILER. The CAB will extend past the back of the CHASSIS, as shown in Figure 8.

Cut out the CAB DOORS on Parts Page 2.. Fold the two small triangular panels UPWARD and then fold the bottom and side panels UPWARD, folding along the green lines. Place glue on the triangular panels, bottom panel and side panels. Carefully glue the CAB DOORS inside the back of the CAB as shown in Figure 9. (If the piece gets pushed too deep into the cab, you can use a toothpick to pry it back out.)

Next, cut out the COW CATCHER on Parts Page 2. Fold the three gray tabs DOWNWARD, fold the triangular top panel DOWNWARD, fold the large dark gray panel DOWNWARD and then fold DOWNWARD between the two side panels. Glue the triangular tab with the green dot to the back of the top panel. Then glue the remaining triangular tab to the adjacent side panel and glue the final gray tab to the large gray panel. The piece should now resemble Figure 10.

Place the COW CATCHER over the dark gray area on the front of the CHASSIS and glue the COW CATCHER in place, as shown in Figure 11.

Next, we'll need to add a few smaller parts to complete the steam engine. These smaller parts can be tricky, so it may be helpful to glue one tab at a time and hold each tab in place a moment to dry before continuing. Working slowly and patiently helps a lot.

Cut out the LEFT CYLINDER on Parts Page 2. Cut along the red lines (shown in Figure 12) to separate the tabs from both end panels. Fold all eight gray tabs DOWNWARD. The panels with two bolts are end panels. Fold both end panels DOWNWARD. Fold the rectangular panel connected to the rear end panel UPWARD, folding along the green line. Then fold DOWNWARD between the five side panels, folding along the four blue lines. Glue the gray tabs to the back of the end panels. The cylinder should now resemble Figure 13.

Place the LEFT CYLINDER over the black rectangle on the left front of the CHASSIS, as shown in Figure 14. The cylinder's triangular front panel and rectangular top and rear panels should all go over the matching areas on the CHASSIS. Glue the LEFT CYLINDER in place.

Cut out the RIGHT CYLINDER on Parts Page 2. Assemble in the same manner as the LEFT CYLINDER and then glue the RIGHT CYLINDER to the right front of the CHASSIS.

Now we'll add a steam dome to the top of the boiler. Cut out DOME BASE 1 on Parts Page 2. Fold the four lower tabs UPWARD, fold the gray panel DOWNWARD, and then fold DOWNWARD between all eight side panels. Glue the gray panel to the back of the opposite side panel. The piece should now resemble Figure 15. Place DOME BASE 1 around the gray spot in the center of the boiler's top panel, with the longer tab towards the front, as shown in Figure 16. Glue the tabs to the matching areas on the top panel.

Cut out the STEAM DOME on Parts Page 2. Glue one of the ends to one of the side panels on the DOME BASE, as shown in Figure 17. Let this dry completely. Then bend the opposite STEAM DOME panel down (don't fold) and glue it to the opposite side of the DOME BASE. Continue this process until all eight sides are glued down. You should now have a little dome, as shown in Figure 18.

Cut out DOME BASE 2. Assemble in the same manner as DOME BASE 1. Connect DOME BASE 2 around the gray spot towards the rear of the boiler's top panel.

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Cut out the SAND BOX on Parts Page 2. Connect the SAND BOX to DOME BASE 2 in the same manner as the STEAM DOME was attached to DOME BASE 1.

Next we'll add the smoke stack. Cut out the SMOKESTACK on Parts Page 3. This piece should be assembled in the same manner as the DOME BASE pieces, except for one difference: The two longer bottom tabs each have 2 folds instead of just one. For each of these, fold UPWARD along the green lines and then fold DOWNWARD along the blue lines.

Place the SMOKESTACK around the black spot towards the front of the boiler's top panel, with the longer tabs towards the sides, as shown in Figure 19, and glue in place.

Now cut out the SMOKESTACK TOP on Parts Page 3. Fold the light gray tab and all eight darker gray tabs DOWNWARD. Fold DOWNWARD along all of the blue lines. Fold UPWARD along all eight green lines. Use the black marker to darken the inside of the piece as shown in Figure 20. (You only need to darken down to the green fold lines.) Glue the light gray tab to the opposite side panel and then glue each darker gray tab to the adjoining panel to form a piece like the one shown in Figure 21. (Tweezers are helpful for holding the tabs in place while they dry.)

Glue the eight lower panels on the SMOKESTACK TOP directly over the matching areas at the top of the SMOKESTACK, as shown in Figure 22.

Let's add a lantern to our steam engine. Cut out the LANTERN on Parts Page 3. Fold the four gray tabs DOWNWARD, fold the top panel DOWNWARD, and then fold DOWNWARD between the four side panels, folding along the blue lines. Glue the top panel's two triangular tabs to the adjacent side panels. Then glue the remaining triangular tab to the top panel and glue the final gray tab to the back of the panel with the gray rectangle. Glue the gray rectangle on the back of the LANTERN to the black spot on the front of the BOILER, as shown in Figure 23.

To finish the engine, we'll add a linkage so it can pull the rest of the train. Cut out the ENGINE REAR LINKAGE on Parts Page 3. Fold the two outer panels UPWARD, folding along the green lines. Then fold DOWNWARD along the blue center line. Note that the flat edge of the linkage will be the top edge and the slanted edge will be on the bottom. Cut a toothpick so it's 1 inch in length and darken it with the black marker. Place the toothpick in the middle of the linkage as shown in Figure 24 and glue the two sides of the linkage (but not the two outer panels) together. Pinch the paper tightly along the side of the toothpick so it's connected tightly.

Glue the two outer panels of the ENGINE REAR LINKAGE directly over the matching panels on the back of the CHASSIS, as shown in Figure 25. Your steam engine is now complete! Next we'll build a Tender (Coal Car) so the train can travel long distances.

**TENDER ASSEMBLY:** Cut out the TENDER on Parts Page 3. Fold all eight gray tabs DOWNWARD. Fold the front and side panels DOWNWARD (the green triangle points towards the front of the car). The rear section has three panels. Fold the outer panel UPWARD along the green line, fold the middle panel DOWNWARD along the blue line, and then fold the panel with the ladder DOWNWARD.

Glue the two front gray tabs to the adjacent panels, and then do the same for the two rear tabs. Now glue the four remaining tabs to the two remaining panels. The car should resemble Figure 26.

Cut out the TENDER FRONT WHEELS on Parts Page 4. Fold the gray tabs DOWNWARD and then fold all four sides DOWNWARD. Glue the gray tabs to the adjacent side panels to form a box, as shown in Figure 27.

Cut out the TENDER REAR WHEELS and assemble them in the same manner.

Glue the TENDER FRONT WHEELS and the TENDER REAR WHEELS to the bottom of the TENDER (being sure to match the color and direction of the triangles). The TENDER should now resemble Figure 28.

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Cut out the TENDER FRONT LINKAGE on Parts Page 4. Fold the two end panels UPWARD, folding along the green lines. Curve the middle panel around a pen or pencil so the piece resembles Figure 29. Use the black marker to darken the back of the middle panel and then glue the TENDER FRONT LINKAGE to the matching areas on the front of the TENDER, as shown in Figure 30.

Cut out the TENDER INTERIOR on Parts Page 4. Fold the four side panels UPWARD, folding along the green lines. Fold the outer rear panel DOWNWARD, folding along the blue line. Glue the outer rear panel directly over the matching panel on the top of the TENDER, as shown in Figure 31. Then push the rest of the TENDER INTERIOR down into the TENDER and glue the TENDER INTERIOR front and side panels to the TENDER, as shown in Figure 32. Trim (if needed) by cutting or by using the black marker to darken any white areas.

To finish the TENDER, cut out the TENDER REAR LINKAGE on Parts Page 4. Cut another toothpick to a length of 1 inch and darken with the black marker. Assemble the TENDER REAR LINKAGE in the same manner as the ENGINE REAR LINKAGE (see Figure 24) and then connect the TENDER REAR LINKAGE to the matching panels on the back of the TENDER REAR WHEELS, as shown in Figure 33. The TENDER is now complete.

Connect the TENDER to the ENGINE by placing the TENDER FRONT LINKAGE over the toothpick on the ENGINE REAR LINKAGE, as shown in Figure 34. Next we'll assemble the passenger cars. (The cupola parts on Parts Page 4 are for the Caboose, lay these parts aside for now.)

**PASSENGER CAR ASSEMBLY:** Cut out the PASSENGER CAR on Parts Page 5. Fold the four gray tabs DOWNWARD and then fold all four side panels DOWNWARD, folding along the blue lines. Glue the gray tabs to the adjacent side panels to form a box, as shown in Figure 35.

Cut out the PASSENGER FRONT WHEELS and the PASSENGER REAR WHEELS on Parts Page 6. Assemble in the same manner as the TENDER wheels (see Figure 27) and then attach the wheels to the bottom of the PASSENGER CAR (again matching the color and direction of the colored triangles), as shown in Figure 36.

Now cut out the FRONT DECK on Parts Page 5. Fold the two light gray tabs DOWNWARD, fold the gray rectangular panel DOWNWARD, and then fold the two side panels DOWNWARD, folding along the blue lines. (Do not fold the dark gray tab.) Glue the two light gray tabs to the adjacent panels to form a piece like the one shown in Figure 37.

Cut out the FRONT DECK LINER on Parts Page 5. Fold the bottom panel and the two side panels UPWARD, folding along the green lines. Glue the FRONT DECK LINER to the inside of the FRONT DECK, as shown in Figure 38. Trim (if needed) by cutting or by using the black marker to darken any white areas.

Locate the front of the PASSENGER CAR (the rear has a linkage mounting plate on the back of the wheels). Place the FRONT DECK onto the PASSENGER CAR as shown in Figure 39. Glue the dark gray FRONT DECK panel to the bottom of the car and glue the triangular FRONT DECK panels to the sides of the car.

Next, cut out the REAR DECK and the REAR DECK LINER on Parts Page 6. Fold and assemble in the same manner as we did the FRONT DECK. Place the REAR DECK onto the back of the passenger car and glue in place (in the same manner as we did the FRONT DECK).

Now cut out the PASSENGER FRONT LINKAGE. Fold and assemble in the same manner as we did the TENDER FRONT LINKAGE (see Figure 29). Glue the PASSENGER FRONT LINKAGE to the PASSENGER FRONT DECK as shown in Figure 40.

Cut out the PASSENGER REAR LINKAGE. Cut another toothpick to a length of 1 inch and darken with the black marker. Assemble the PASSENGER REAR LINKAGE in the same manner as we did the ENGINE REAR LINKAGE (see Figure 24). Glue the PASSENGER REAR LINKAGE to the PASSENGER REAR WHEELS, as shown in Figure 41.

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Next we'll add a roof to the car. (The roofs for both of the passenger cars and for the caboose will be removable so you can store things inside them.) Cut out the ROOF on Parts Page 6. Fold DOWNWARD along all four blue lines.

Cut out the two AWNING pieces on Parts Page 5. For each of these, fold UPWARD along the two green lines. Place an AWNING piece on the unprinted side of the roof at each end, as shown in Figure 42, and glue the AWNING pieces in place. Trim if needed.

Now cut out the two TOP PANEL pieces on Parts Page 6. For each of these, fold the three gray tabs DOWNWARD. Place a TOP PANEL on each end of the ROOF, as shown in Figure 43. Glue the small TOP PANEL tabs to the sides of the ROOF piece and glue the large TOP PANEL tab to the center panel of the ROOF. The ROOF should now fit onto the car, as shown in Figure 44.

To finish the PASSENGER CAR, select four toothpicks and cut each toothpick to a length of 1 and 3/4 of an inch. Darken the toothpicks with the black marker. Now place plenty of glue on the lower half of each toothpick and glue a toothpick to each inside corner of the passenger car's decks, as shown in Figure 45. Slide the toothpicks upward until they touch the roof's awnings. When finished, give the toothpicks plenty of time to dry securely.

The PASSENGER CAR is now complete. Connect the car to the TENDER by placing the front linkage over the toothpick on the TENDER'S rear linkage (see Figure 34).

If you want more than one passenger car on your train, print out extra copies of Parts Pages 5 and 6 for each additional car.

**CABOOSE ASSEMBLY:** To finish the train, we'll add a caboose. Cut out all of the parts on Parts Pages 7 and 8. Assemble these parts in the same manner as we did the passenger cars. (Note that the Caboose has no REAR LINKAGE, just a FRONT LINKAGE.) After assembling these parts, the Caboose should resemble Figure 46.

To finish the Caboose, we'll add a cupola. Cut out the CUPOLA on Parts Page 4. Fold the lower four panels UPWARD, folding along the green lines. Then fold the gray tab DOWNWARD and fold DOWNWARD between the four side panels, folding along the blue lines. Glue the gray tab to the back of the opposite side panel. The CUPOLA should now resemble Figure 47.

Cut out the CUPOLA ROOF on Parts Page 4. Fold DOWNWARD along all four blue lines. Cut out the CUPOLA AWNINGS and place an awning on the unprinted side of the CUPOLA ROOF at each end, as shown in Figure 48. Trim if needed.

Glue the two side panels on the CUPOLA ROOF directly over the matching areas on the sides of the CUPOLA, as shown in Figure 49. Then place the CUPOLA over the gray area on the roof of the CABOOSE. Glue the four lower CUPOLA panels to the matching areas on the Caboose roof, as shown in Figure 50.

The CABOOSE is now complete. Place the CABOOSE FRONT LINKAGE over the toothpick on the PASSENGER REAR LINKAGE of PASSENGER CAR 2 to connect the CABOOSE to the train.

Congratulations! Your Ghost Train is now finished.