How to fold letter into its own envelope

Sealed Letter

For centuries after paper became common letter writing material in the mid 14th century, documents were usually *sealed* (a.k.a. *locked*) for transport and storage. Sealing consisted of various methods of folding the letter, to protect its interior from dirt and stain, and binding with wax, ribbon, string, ..., to render tamper-evident.

Letterlocking, sometimes synonymous with letter sealing, usually referred to more elaborate means of making letters tamper-evident, especially if the evidence of tampering was only apparent to the sender and/or receiver, and not apparent to the tamperer.

Today, the USPO identifies such sealed letters as *folded self-mailers*.

Folding

Method of folding is generally chosen by *Aspect Ratio* (i.e. height/width).

bone scorer

A bone scorer is a tool for making sharp and accurate folds. A bone scorer got its name from being typically manufactured from a flat bone. In the 19th and 20tch century, bone scorers were more often made of wood sanded smooth, or later plastic. Ideally, a bone scorer is about 6in long, about 1/4in to 1in wide, and about 1/8in thick tapering to about 1/32in over the last 1in at the ends. Ideally, a bone scorer is sanded smooth, so that it can be rubbed under pressure against

paper without tearing or cutting.

Make your own

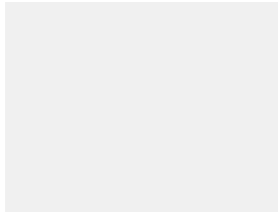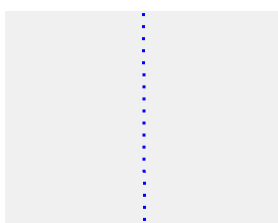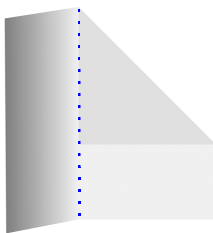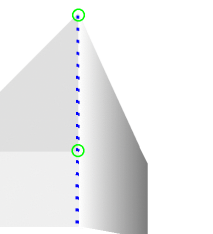If you don't have a bone scorer, you can use

cellphone stylus
popsicle stick
tongue depressor
3x5in index card, cut in half to 1.5x5in, then folded in half to 0.75x5in
wooden or plastic knife (if it has no edge or serration)
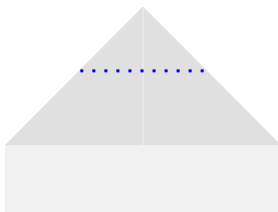
usletter (8.5x11in) to 3x5in (postal size)

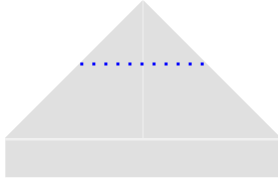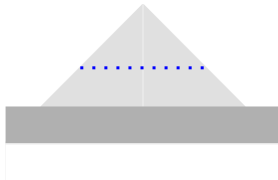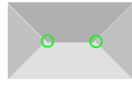This was the most common method of folding letters in the United States and United Kingdom for at least two centuries before Wold War II. The resulting 3x5in size, set the standard for the first index cards in 1760, by 🌐 Carl Linnaeus, "the father of modern taxonomy", and "postal size" library catalog cards published by the American Library Association from 1877.

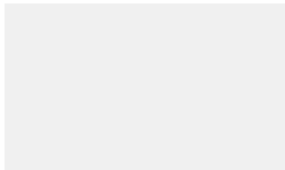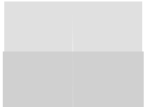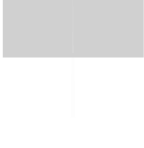|		
Start with a sheet of paper, writing side up. Aspect ratio, $\frac{height}{width}$, must be between $\frac{6}{5}$ and $\frac{4}{3}$		
Fold the paper in half, crease it in the middle, and unfold.		
Hint: This crease and the following corner folds are critical. Aligning and holding the corners while scoring toward center helps ensure a fast, accurate, crisp crease.		
While holding the left side up, bend the right corner in, push the right top against the left side, and fold the corner down.		
Hint: These corner folds are critical. Aligning and holding top side against the upheld left while scoring from top middle outward helps ensure a fast, accurate, crisp fold.		
While holding the right side up, bend the left corner in, push the left top against the right side, and fold the corner down.		
Hint: These corner folds are critical. The folded corners must not overlap, and the gaps (green) should be less than 1/16in.		

Fold the bottom section up over the folded-down corners.	
Hint: The flattened crease in the bottom section should align with the very small gap between the folded-down corners. The fold between the bottom section and folded-down corners should leave the section lying smooth over smooth folded-down corners.	
Fold the point down over the section.	
Hint: The point should lie smooth over the section, leaving the section and folded-down corners smooth.	
Unfold the point and section enough to perform the next steps.	
Fold the lower half of the section up.	
Hint: While holding the folded corners up, push the page bottom into the fold between section and folded-down corners, and fold the bottom section in half.	
Fold the bottom section, now halved, back up onto the folded-down corners.	
Fold the point back down onto the section.	

Fold the right side in.	
Hint: The bottoms should align, and the section should come close without overlapping the point.	
Unfold the right side enough, and fold the left side in.	
Hint: (same as above for right side)	
Fold sides up.	
Hint: On each side, while holding up the side, fold the bottom edge in-and-up, push into the fold, and crease. The folded side should not go past the top. If imperfect prior folds require, adjust the fold corner outward, so that the gpas (green) is small without overlapping.	
Tuck sides under point.	
Hint: Section should lie flat. To smooth section, hold section center with fingernail and score side fold outward.	
Tuck point in. Fix paper where 3 meet (green) with wax, glue and ribbon, stamp, cellophane tape, ...	
The letter is sealed.	

uslegal (8.5x14in) to 3x7in (banknote size)

This fold doesn't protect its contents as well as most other sealed letters (e.g. usletter to postal), but it requires no precision, and applies to any aspect ratio.

In 19th century America, personal documents, folded in this fashion would be carried in a billfold, along with bnaknotes/cash (then 3x7in). When the 1890 census needed a format for tabulating, Hollerith chose the 3.125x7.125in size to fit cash drawers then in use. For the next century, even after federal reserve notes shrunk in the 1920s, the IBM computer card remained 3x7in.

Start with a sheet of paper (8.5x14in), writing side up.	
Fold the sides toward the middle, so they touch without overlapping on top and have a slight (1/16-1/8in) gap at the bottom.	
Hint: Sharp creases will make the following steps easier.	
Fold bottom third up.	
Hint: Before creasing bottom fold, roll top third down, to adjust bottom fold, so bottom third is 1/4-3/4in larger than bottom third.	
Fold top third down.	
Hint: top crease should be slightly (1/16-1/8in) above lower folded section, to leave small gap at upper corners.	
Tuck top third into bottom third, between 3rd and 4th layer.	
Hint: Unfold top, hold left lower corner with fingernail, roll top left corner into left bottom fold, roll right top into bottom, roll remainder of top into bottom, then crease.	

Software

📎usletter_fold.xcf 📎uslegal_fold.xcf