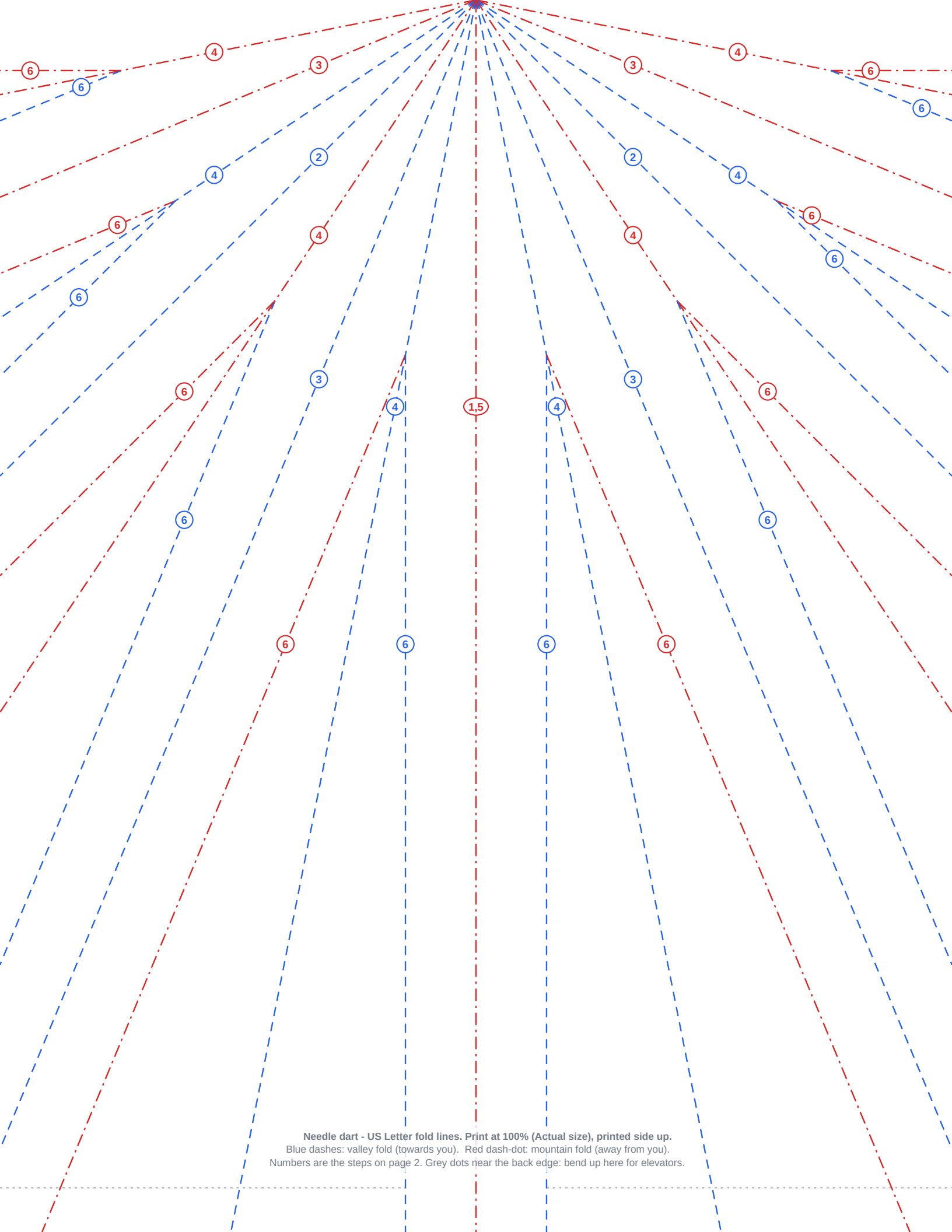
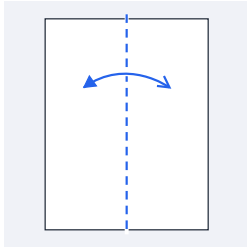




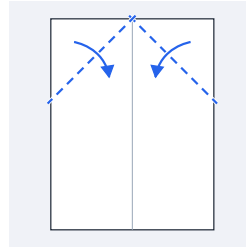
Needle dart - US Letter fold lines. Print at 100% (Actual size), printed side up.
Blue dashes: valley fold (towards you). Red dash-dot: mountain fold (away from you).
Numbers are the steps on page 2. Grey dots near the back edge: bend up here for elevators.

How to fold the Needle dart

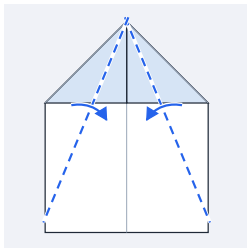
Difficulty: easy - best for: Distance. Start with page 1 printed side up.



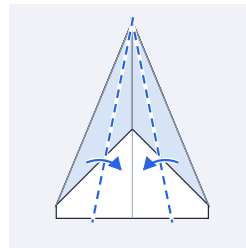
- 1** Lay the sheet portrait, printed side up. Fold it in half lengthwise, crease firmly and unfold again. The centre crease is your guide for every fold that follows.



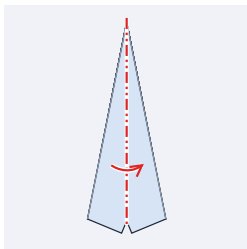
- 2** Fold both top corners in so their top edges lie along the centre crease.



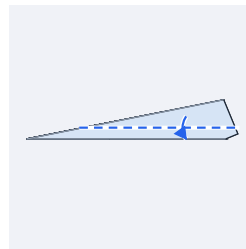
- 3** Fold the new slanted edges in to the centre crease, as for a classic dart.



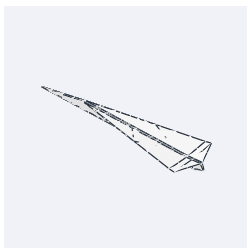
- 4** Fold the slanted edges in to the centre crease one more time. The nose is now a long, thin needle point and the folded layers make it heavy at the front. The bottom ends of the flaps reach a little past the bottom edge; that is normal.



- 5** Turn the plane over and fold it in half along the centre crease, so the folded flaps end up on the outside. Turn it so the nose points left.



- 6** Fold the top wing down along a line parallel to the bottom edge (the keel), about 1.6 cm (5/8 in) above it. Turn over and fold the other wing to match.



- 7** Open the wings so they are flat and level, with a slight upward V seen from the front. Pinch the thick body together just behind the nose.

Throwing and trimming

- Hold the body just behind the thick nose layers and throw hard, straight ahead and a few degrees upward.
- It has very little wing for its weight, so it only flies well fast: a gentle throw makes it drop.
- If it dives, bend the last few millimetres of both wing trailing edges up very slightly; small wings react strongly.
- If it pitches up and stalls, flatten those bends again.
- If it corkscrews, the two wings are not equal: refold them so their edges sit exactly on the keel.