4th suit forcing

Classically the 4th suit is bid in auctions in order to check that the two players have sufficient "stops" in the 4th suit

e.g 1H----------1S
2C---------- ?
AK872
K8
J32
Q76

Here 2D is the next bid. Opener, having heard this 4th suit "enquiry" will check to see if their own holding in diamonds is sufficient to be a "stop" for NTs.
If opener has an Ace or King or Queen in this 4th suit diamonds they can bid NTs.

4th suit forcing is also used though when responder could bid NTs (ie they have a "stop") BUT they consider it might be better if the lead came up to partner.

e.g 1H----------1S
2C----------2D*
2NT----------3NT
92 AK872
AQ765 K8
Q4 A32
AQ43 976

NB 3NT has a much better chance if played by opener with the expected diamond lead "coming round" to opener.

==========

Doubles (and redoubles) of NTs.

If your partner is doubled in 1NT and you have 5 -------9 pts you normally grin and bear it and hope partner makes or doesn't go too many off.

e.g N	E	S	W
1NT	Dble	?	
		Q92	
		Q7652	
		J54	
		43	

Some would bid 2H as an escape bid - a weak take out with a five card suit.
This isn't wrong and might work but generally I would pass with 5----9 even with a five card suit.
NB if you have only 0------4 and a five card suit then yes , do bid the suit to remove the double. So with : 76 -----J7654 ---Q987 ----32 2H is the bid to make.

If you ever have as many as 10 pts and partner is doubled in 1NT then redouble. Probably partner will make the contract of 1NT redoubled (1NT * * is how it is entered on the score card); the 1NT ** if it makes 7 tricks is worth more (much more) than bidding game. [with A4 ----QJ987----K65 ----432 REDOUBLE]