NSR Technique 2011

In general terms:

This is intended as a compact, essential guide to rowing and sculling technique. In sculling there is the issue of dealing with two blades/crossover, and in rowing the division of labour of the hands and the asymmetric rotation of the body. But essentially rowing technique and sculling technique share the same fundamental features, namely:

* Long, powerful strokes and, in a crew, moving perfectly in time.
* Relaxation: both during the power phase and on the ‘recovery’
* Good ratio: that is the relationship between the time of the power phase to the time of the recovery (*more* time on the recovery than during the power phase!) ie good rhythm.
* Clever management of the reciprocation ie the changes of direction at catch and finish.
* Continuous, fluent movement.
* Tall sitting position, the hips in a ‘forward’ position, the lower back engaged (not slumped) and the shoulders low and relaxed.

The particular differences involve a) grip: rowing – hands a little less than shoulder-width apart with the little finger of the outside hand just over the end of the handle; sculling – the handles should be held in the top of the palm/bottom of the fingers, thumbs over the ends of the handles and with the wrists flat and b) body posture – in sculling the movement is symmetrical, in rowing the body has to follow the arc described by the movement of the blade handle.

1. Catch – the chest should be against the thighs and the shins vertical with the lower back pre-engaged, so the back is in a strong position. The blade should be put into the water at the maximum point of reach ie avoid a long reach and then wasting ‘length’ putting the blade into the water. Blade entry: the blade should enter the water vertically until it is just covered. This requires the arms to lift *rotating at the shoulders*. A common fault is to put the blade in the water by rotating at the hips. A vital point is that blade entry should coincide with the change of direction of the seat and the start of leg drive. The instant the blade is at the correct depth it should move towards the stern – so the catch is a combination of an immediate placement of the blade in the water and application of force on the face of the blade. The catch should be direct, positive and quick. The arms should stay straight, but relaxed and the body angle should maintain its shape during the catch. NB rowing – the shoulders should be level.
2. Power phase – the stroke should be one-piece and progressive ie accelerating quickly from the catch to the finish. The blade should remain just underneath the surface of the water – horizontal draw - and not go deep at the mid-point. The arms should be straight, but relaxed – simply providing a link to the blade handle(s). The back and legs should work in harmony both major muscle groups working together to apply pressure on the face of the blade. The body angle should ‘open up’ progressively throughout the stroke. The arms should remain straight but relaxed and the body should ‘hang’ off the blade handle(s): NB rowing is a ‘push’ sport not a ‘pull’ sport!
3. Midpoint – sculling: the blades and boat are set up to ‘overlap’ . The hands are carried very close together with the right hand lower and *very slightly* closer to the body. In rowing the body’s centre of gravity should be directly over the keel of the boat ie no leaning in to or away from the rigger. On both cases the body angle has ‘opened up’ so that at the midpoint of the stroke the back is vertical.
4. Finish – the last part of the power phase: maintain force on the face of the blade right through to the finish of the stroke. The arms make their contribution in the last 1/3 of the stroke. As far as possible, co-ordinate the end of leg drive with the end of body swing and the end of arm draw. The elbows should pass past the body slightly and not ‘fan out’ to the sides. NB as the stroke approaches the finish the body passes the vertical position and the shoulders begin to drop very slightly which can lead to the hands pulling down and the blade riding out of the water. To overcome this effect it should feel as though the hands are pulled, very slightly, up the chest. This will maintain a horizontal draw and ensure the blade remains at the correct depth. At the finish the back should not lean back too far as this will cost energy when sitting up and leads to complications of hand height and perhaps injury.
5. Finish – blade extraction. The first part of extraction the blade should still be in the vertical (square!) position and only roll on to the ‘feather’ when it leaves the water. This means that the hands should knock the blade handle(s) down and feathering should be managed by rotating the inside hand – rowing – or in sculling by rolling the handles from the top of the palm to the bottom of the fingers – sculling. Because of the dynamics of the movement the hands will describe an arc, the lower back should be held firm and not ‘collapse’. The hands should be kept moving the whole time during the finish phase.
6. Recovery – from the extraction the hands should be moved away from the body until the arms are straight but relaxed. With the legs still held down, the body should rotate at the hips so the hands should feel as though they are leading the shoulders towards the stern of the boat. The shoulders should pass over the hips and with the hands now already well past the knees, sliding should commence. Hence the phrase, hands/body/slide – this sequence is also a vital point. The body angle for the catch is therefore largely ‘set’ before sliding starts. This achieves a smooth transfer of the weight of from ‘backstops’ to ‘frontstops’ ie from one end of the slide to the other. Sliding should be controlled and one speed – no slowing down or speeding up. The blade(s) should be carried well clear of the water!
7. Catch – preparation: Approaching the catch ‘squaring’ the blade should take place with adequate time – in rowing the rotation of the handle is done by the inside hand and in sculling by the thumbs rolling the handles from the fingers to the top of the palm whilst maintaining flat wrists. The hands – again with the arms straight but relaxed - should be raised progressively so as to bring the squared (vertical) blade(s) close to the surface of the water just before blade entry. Then back to 1.!