1. Theory
   Define RMT

2. Head Measurement
   Nasion-Inion
   Tragus-Tragus
   Vertex
   5cm Lateral
   Grid

3. Patient Prep
   Electronic items
   Ear buds
   Lap pillow
   Sit comfortably
   Hands loose
   Feet flat
   Eyes open
   Relax

4. EMG (if used)
   Skin prep
   Place Electrodes
   i. Ground
   ii. FDI
   iii. Reference
   Operate software

5. General Technique
   >4s between pulses
   3 pulses per spot
   Coil at 45°
   Tangential
   Coil weight

6. Locate Hotspot
   1. Anterior—Posterior
   2. Medial—Lateral
   3. Angle (0—90°)

7. RMT Determination
   MEP Threshold
   Amplitude > 50 µV
   Visual Threshold
   Any muscle twitch
   Min Intensity: 3/6
   RMT within ± 2% of Assessor

Signature
Assessor
1. **Theory**: Practitioners must be able to demonstrate an understanding of the theory underpinning resting motor threshold (RMT) determination. Additionally, they must provide an adequate definition of RMT. For example: “Resting motor threshold is used to determine an individual’s sensitivity to TMS”.

2. **Head Measurement**: Practitioners must correctly determine the grid for RMT hotspot localisation through scalp measurements. Nasion-Inion and Tragus-Tragus measurements must be accurate to within 5mm. Correct identification of the Vertex must include a visual check and Patient check to ensure correct placement. The centre of the grid must be drawn 5cm lateral of the Vertex on the same hemisphere being tested for RMT.

3. **Patient Preparation**: Practitioners must remove any electronic items from the Patient. Practitioners must position the Patient appropriately for the RMT procedure; this includes placing a pillow on the Patient’s lap, seating them comfortably with hands loose and feet flat on the ground, reminding the Patient to keep their eyes open and remain relaxed throughout the procedure. Practitioners must provide Patients with hearing protection.

4. **EMG (if used)**: Practitioners should clean the sites where electrodes will be placed using an alcohol swab, and then gently abrade the sites using cotton dressing. Three electrodes should be placed on 1) the FDI muscle belly; 2) the insertion point of the FDI at the knuckle of the index finger (a minimum of 3.5cm away from the FDI electrode); and 3) the ground electrode should be placed on the back of the hand/s. Practitioners should be able to competently operate the EMG software to calculate peak-to-peak motor evoked potential (MEP) amplitudes.

5. **General Technique**: The interval between pulses must be at least 4 seconds. Each location should be stimulated at least three times to get a sense of the average response at that site. The TMS coil must be held 45° relative to the parasagittal plane. The TMS coil must be tangential on the scalp as seen from the front, and side, of the TMS coil.

6. **Locate Hotspot**: Locating the optimal placement for the Hotspot (i.e. the spot that elicits the strongest activation of the FDI muscle) is a three step process: 1) Firstly, Practitioners must test locations along the Anterior-Posterior plane, identifying which spot generates the strongest muscle activation irrespective of where the activation occurred on the hand/arm; 2) Secondly, Practitioners must test along the Medial-Lateral plane, identifying which spot best localises muscle activation to the FDI; and 3) Finally, Practitioners should check for the optimal coil rotation angle (within the plane tangential to the scalp).

7. **RMT Determination**: Practitioners must specify that the RMT value is the minimum machine intensity that generates at least three out of six (3/6) muscle activations greater than a predefined threshold. If using EMG, the threshold is defined as a peak-to-peak amplitude equal to or greater than 50µV. Otherwise, the threshold is defined as any visible muscle activation produced by the TMS pulse. The RMT value found by Practitioners must be within 2% of machine intensity of the RMT value determined by the Assessor.