MRI Terminology for Neuroimaging	
localizers (scouts)	This is the first sequence acquired at the scanner. It takes ~17 seconds to acquire and help the scanner tech to to place a box around the head for optimal acquisition of the rest of the sequences. So, although you won't convert it to BIDS or use it, it is a necessary sequence.
T1w	You will usually acquire a T1-weighted structural (a.k.a anatomical) image. It'll take about 5 minutes and have voxels ~one-millimeter in each dimension (1 mm **isotropic**). This is considered *high resolution* because it is much better than typical fMRI or DWI.
AX_DE_TSE	This T2-weighted Turbo Spin Echo is not a common anatomical image to acquire. However, the T2 tissue contrast may provide insight into tissue damage that is not readily visible on the T1w image. For this reason, it may be worth acquiring, especially if it does not take long and if you are working with a population that is likely to have tissue damage.
DTI_30_DIRS_A-P	This diffusion image is used to examine the integrity of white matter. It may be referred to as a **DTI** (Diffusion Tensor Image) or a **DWI** (Diffusion Weighted Image). This one has 30 directions, which is probably the minimum you would want for research. However, it only takes about 5 minutes to acquire. If you double the number of directions, you'll also double the acquisition time. Such images usually have voxels that are about 2 mm isotropic.
B0_verify-P-A	This **B0** (b-zero) image is a reverse-phase-encode image intended for use in correcting the DTI image. It only takes about a minute to acquire because it only contains 2 or 3 volumes and no directions. Otherwise it is matched to the DTI sequence in voxel size etc.
restingstate	This is a resting state **fMRI** (functional magnetic resonance image). It includes 177 volumes, repeated every 2 seconds (i.e., repetition time, **TR**, is 2 seconds) (~ 6 minutes). Voxels are 2.5x2.5x3.5 mm so they are **anisotropic** (not the same in every dimension..

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MRI Terminology for Neuroimaging (cont)	
field_mappings	Field maps take about 1.5 minutes to acquire and are extremely useful for correcting distortions in DTI or even fMRI sequences. This typical fieldmap sequence includes two **magnitude** images and one **phase** image. The voxels are 3x3x4.
ASL_3D_tra_iso, Perfusion-weighted	These arterial spin labeling images are uncommon and used to measure perfusion in the brain.. I believe these two sequences are native Siemens sequences.
JJWANGS*	These are experimental ASL sequences that are not developed by Siemens. Because we have a research scanner, we will sometimes have these experimental sequences available. Again, these are uncommon.

It is worth thinking about the order of sequences. Localizers must come first. Without the T1w image, you can't do any reconstruction, so it is often next. Besides, the tech can look at the T1w image to see if there is anything subtle but problematic in the participant's brain. For fMRI scans, even resting-state ones, you want the participant to be awake, so you may want to acquire this relatively early in the run.

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