Scales and arpeggios often receive a bad press. They are the foundation of good piano playing yet few want to play them let alone practise them. However, scales are an excellent way to establish a reliable piano technique.

The development and concept of major and minor scales goes back as far as ancient Greek music; the origin of scales can be traced to the system of modes which evolved in Greek music and church music particularly. Modern major and minor scales were eventually developed alongside the ongoing evolution of keyboard and stringed instruments, and the various temperaments affiliated with all the ancient and modern tunings which were finally adopted.

Every pianist is expected to learn scales and arpeggios from the outset and they are included in virtually all piano exams irrespective of the grade or examining board. This is one indication of their significance but exams are certainly not the only reason why budding pianists need to focus on them. The benefits of good scale practice and thorough knowledge of scales and arpeggios are numerous; in fact, if you practise them properly, you could probably cultivate a sound technique from scale practice alone (although it’s advisable to use many other practice methods and musical material for technical development too).

Scales and arpeggios will first and foremost allow a pianist to become very familiar with all twenty-four keys - crucial for musical development. They will improve keyboard geography, rhythmic grasp, strengthen fingers, encourage proper legato playing, teach equality of touch, help develop endurance, train the ear, control knuckle movement, help control motor-activity, assist with the passing of the thumb under the hand and the hand over the thumb fluently, teach traditional fingering, encourage variety of tone production (dynamic variation) and flexibility of the wrists and arm movement. They can also promote independence of nuance and touch, variety of accentuation, different staccato and legato articulations and fluency with cross-rhythms, as well as complete co-ordination.

So they are indeed a very useful tool for generating superlative piano playing. One
scales and arpeggios

other (often forgotten) benefit is the role they play in improving sight-reading; if a student is routinely exposed to scales, arpeggios, chord shapes and their appropriate fingerings, then they become much easier to decipher when reading music at speed. Indeed, thorough knowledge of scale patterns and shapes forms the bedrock of secure musical foundations.

So what is the best approach to scale practice and how can we keep ourselves both motivated and stimulated whilst working at them? There are many different ways to make practising scales and arpeggios more interesting, and, with a little thought and imagination, they can even sound beautiful.

I believe students benefit from thinking about the musical considerations as well as the technical aspects associated with scales. So, with this in mind, perhaps it’s a good idea to focus on them musically and once learnt, inject them with character and personality. This way they enhance a pianist’s musicianship rather than become just a test in agility. Every scale becomes a meaningful exercise, whether it’s a scale or a Mozart sonata. Students often ignore this important element at their peril, precipitating the boredom so often associated with scale practice. Arpeggios also need a musical approach and I find them much easier to play scales thoroughly correctly. If these points are observed and the shape or pattern of each scale or arpeggio. If these points are observed and the shape or pattern of each scale or arpeggio, then relaxation of the muscles is imperative here; tension is definitely required, but is only used at the exact moment of impact (that is, playing a note) after which relaxation must occur, otherwise your arms, hands or wrists will eventually ‘lock up’. Allow the fingers to work freely, supported by arm weight. It is a fact that you need to move when playing the piano – how else are you going to get from one end of the keyboard to the other? This is especially true of scales, so allow your body to move freely and be aware of this when you are playing (it’s all too easy to block out physical sensations when you are focusing on playing the correct notes and keys).

It may sound obvious, but to play scales fluently and accurately, both hands need to be working equally well. So finger strength is paramount. The left hand must not be dragging behind the right. This is a very common problem and the best way to deal with it is to practise hands separately slowly, gradually increasing the speed.

It is a good idea to start by practising two-octave scales and only elongate to three and four octaves at a time when you have really grasped the patterns; the left hand will probably need more attention than the right regarding fingerings and hand positions. Everyone has their favourite hand positions, but when learning scales two crucial points arise: the number of accidentals (depending on the key) and the shape or pattern of each scale or arpeggio. If these points are observed completely from the outset then memorising will not be a problem, so it’s worth spending time getting this right from the beginning as all scales and arpeggios have to be played securely from memory anyway.

Once you have learnt the key and its shape, you will need to find a way of using appropriate arm weight and wrist movement allowing each finger to work properly on its ‘tip’. I am a real advocate of the fingers working on their tips, i.e. the very top or ‘pad’ of your finger thus avoiding ‘flat’ fingers (many argue that flat fingers are effective but I prefer using my fingertips thus each finger acquiring a ‘hooked’ shape). The power should be coming from your arm weight, the knuckles supporting the fingers and the wrists working freely in a lateral and rotational motion. This technique not only allows flexible, free playing but also fosters excellent tone production and finger strength too. The fourth and fifth fingers are naturally weaker, but if they are encouraged to work well, functioning as independently as possible (from the other fingers) and via the knuckles (rather than the wrists which should feel free and ‘light’), then scale playing will be even and fluent. Spend time playing each note with a full sound, working slowly and purposefully, preferably with arm weight on each note to start with. Then lighten the arm weight as you build up speed. This will help build up finger strength and achieve smooth, legato playing.

Rotational movement will play a vital role when dealing with the problem of passing the thumb under the hand, as well as fingers over the hand. This does tie in with my earlier comment regarding flexibility. The more pliable the hand, the easier this motion will be. The trick is to practise it so that the scale passage is not only completely stable rhythmically, but also the amount of tone or sound used for each note is matched exactly. Then your scales will be even. When practising very slowly, allow your hand position to move copiously, i.e. encourage a complete lateral and rotational motion each time the thumb passes under in the right hand. Although this will feel awkward, exaggerated and uncomfortable to start with, it will allow your right hand and arm to get used to moving freely with no tension so when you practise up to speed, the whole arm will move flexibly and the movement itself will be much smaller and quicker. The same flexibility and motion also applies to the left hand when the third or fourth finger passes over the hand. (This obviously applies to the ascending part of the scale.)

This works surprisingly well and needs careful consideration when applying to arpeggios which, by their nature, require lots more movement. Arpeggios rely on a perfect ‘swivel’
in the hand; your hand will need to return to the same position for each octave otherwise notes will not be accurate. This is especially true with the left hand. Rather like scales, they require slow separate hand practice before being played hands together. Get the perfect position or ‘swivel’ in both scales and arpeggios, and providing you have built up your finger strength, you will be able to play at very fast tempi with no difficulty. Try not to ‘block’ motions with tension or tense movements; we don’t consciously do this but it often happens, leading to inflexibility.

Articulation (or touch) is vital when playing scales, and staccato passagework needs a completely different approach to legato. Start by using your whole arm on each note, rather like the legato technique suggested above, only playing detached. Then introduce wrist staccato, playing every note with a separate wrist action, and finally you will need to use a finger staccato as you build up the speed. This takes a free wrist and total finger strength (a factor you will already be working on if you employ some of the suggestions above). There are many variations with articulation and you may want to think about implementing some of the following: legato, staccato, non-legato, marcato and leggiero. Once scales are really fluent, try playing legato in the right hand whilst playing staccato in the left and vice versa. You can build many different permutations regarding touch and they will all help in your quest to play scales perfectly.

It is worth mentioning the importance of fingering in scales and arpeggios. Many pianists (pupils, amateurs and professionals) like to invent their own, but scale and arpeggio fingerings are there for a reason. This is especially true of arpeggios, where I find fourth fingers in the left hand to be imperative (see the example of a C major arpeggio in the left hand). (figure 1)

If you play this passage with a third finger on the second, fifth, ninth and twelfth note, E (instead of the suggested fourth), you are immediately making your hand position and movement more awkward whereas with the fourth finger, the position is entirely natural as it is in the shape the chord is usually played. In the second example, which is in the key of D major, a third finger is preferable and more comfortable because of the addition of the F sharp. (figure 2)

So it does all depend on the shape or, rather, key of the scale or arpeggio. Fingering should support natural, fluent scale playing.

Once you have grasped the keys, patterns and movements that are necessary for good scale playing, the next consideration should be how to co-ordinate your hands so that they play accurately and rhythmically at all times.

It is a good idea to purchase a metronome. No one really enjoys learning to use one or indeed playing along to anything that feels unnatural or forced, however it is challenging to learn to play in time effectively without one. It is possible to feel the pulse unaided, and, of course, pianists must learn to develop an ‘inner-pulse,’ but slow metronome practice to begin with really does help achieve secure rhythmic scale playing. Start with slow tempi and increase as finger strength develops.

There are several ways to attain perfect co-ordination. The first is accentuation or learning to play with accents; this will depend on how many octaves you are negotiating. Two- and four-octave scales can be accented like figure 3.
And three octave scales can be accented in triplets, figure 4.
This is a basic way to achieve co-ordination; however you may like to consider some of the following too:

Try basic dotted passage-work like figure 5.
Or this, practising two octaves apart, figure 6.
Or figure 7.
This can be quite helpful as well, figure 8.
Then it is possible to build up on the accent ideas, as this will help with finger independence, figure 9.
Or cross-rhythms like figure 10.
Try different dynamics in each hand, figure 11.
And you could even try something like figure 12.
The last two examples could potentially be practised in so many different guises and
figures. I correspond with my earlier recommendations
regarding playing scales and arpeggios expressively with plenty of sound, dynamic
gradation and musicianship. This really will improve your playing tremendously.

Some find it useful to practise with the hands two octaves apart, which will encourage astute
listening. Listening skills, as with all piano playing, should be perpetually fine-tuned and
honored. This is perhaps a very important factor when practising: always play exercises including
scales when you are fresh and fully focused.

I encourage advanced students to establish a scale rota; if you are taking an exam like Grade
8 (whatever the exam board), it will be time-consuming to practise every scale every day, so
a good plan is to build in a way of playing all keys and permutations effectively from week
to week. Practicing two or three keys per day is a good way of doing this. Make sure each
version or variation is worked on. If you are doing the key of C for example, you would
look at all scales (thirds, sixths, contrary motions) and arpeggios with their appropriate
inversions (as well as dominant and diminished sevenths) in C major and minor.

Practising scales in a different order from that presented in your scale book really makes
sense; they will always be tested in an entirely different order in an exam and it’s surprising just
how distracting this can be. It can play havoc with your memory, so be prepared. Another tip
is to practice with someone else who is also
working at scales (a scale buddy!). You can then
ask each other scales or arpeggios, and learn
from each other too. Scale groups or small
classes can work well especially if two or more
pianos (or keyboards) are available and then you
can play scales together (although you will
probably need a metronome!) as well as testing
each other separately.
If you implement a few of these suggestions
and ideas, you will be well on the way to
developing an exemplary scale and arpeggio
technique, and you may even find they become
an enjoyable part of your practice regime.