## BASICS

# Tuning each note of the scale

#### Measuring

How do you know if the open A string is in tune? You compare the pitch to something else: either the same note on the piano, or a tuning fork, or an electronic tone, or your memory of an A, and so on.

Without relating the A to something else it is neither in tune nor out of tune; it simply is what it is. When there is a point to relate it to, you can measure whether it is higher, lower, or the same.

The same principle applies to tuning every other note on the violin: each note must be measured against, or related to, at least one other note.

#### Open-string notes and accidentals

As a general rule, all Gs, Ds, As and Es should be tuned exactly to the open strings of the same name, bearing in mind that normally the violin should be tuned in 'narrow fifths', i.e. the D fractionally sharp to the A, the G fractionally sharp to the D. Tune the E a pure fifth above the A. Depending on what you are playing, it does not matter if the E is a microtone flat, but it should not be at all sharp to the A.

On a keyboard  $G^{\sharp}$  and  $A^{\flat}$  sound the same. Sometimes these notes are also the same on a string instrument; but sometimes the sharps are sharpened and the flats flattened, so  $G^{\sharp}$  is then somewhat higher than  $A^{\flat}$ . Whether or not a sharp or flat is the same as the tempered pitch of a keyboard, depends on the key or the place of the note in the scale. This is how the great Russian violinist Mischa Elman described good intonation:

Its control depends first of all on the ear. And a sensitive ear finds differences and shading; it bids the violinist play a trifle sharper, a trifle flatter, according to the general harmonic color of the accompaniment; it leads him to observe a difference, when the harmonic atmosphere demands it, between a C sharp in the key of E major and a D flat in the same key.

- Tune each G, D, A and E exactly in tune with the open strings of the same name.
- Measure sharps relative to the natural one semitone above, flats relative to the natural one semitone below.
- Think of B in relation to C; think of F in relation to E.
- Measure C from the perfect fourth above open G, or perfect fifth below G on the D string.

### MUSIC EXAMPLE

Next month's BASICS returns to the left/right hand, with