

Understanding Music

Seventh Edition

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PEARSON

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0:49	The very short notes in these phrases are sixteenth notes .
0:58	Most of the notes now are sixteenth notes (four to a beat: <i>diddlediddle</i>).
1:13	Now let's start concentrating on measure and meter . You have probably noticed that there is a heavier accent every four beats of the music. If you tap your foot and count one on the heavier accent and <i>two, three, four</i> on the lighter ones, you'll see that there are four beats to every measure. This means that the meter is $\frac{4}{4}$: four beats (each a quarter note) to every measure.
1:30	Four quarter-note chords end the whole piece. These chords have quarter-note rests between them, which make them particularly effective. Rests are used before this point, of course, when some of the instruments aren't playing, but here, when all the instruments are silent, we can really <i>hear</i> the rests.

We've figured out that the **meter** in this piece is $\frac{4}{4}$, that the **beat** is very steady, and that the **tempo** is *Allegro*. The piece doesn't seem to have any **syncopation** (off-beat accents), so the rhythm is very straightforward. To make sure that this is all clear to you, listen to the music again and follow the outline. Remember, I said at the beginning of the chapter that the two most important things about listening to music are concentrating carefully and listening several times.

Harmony

The third basic element of music is harmony.

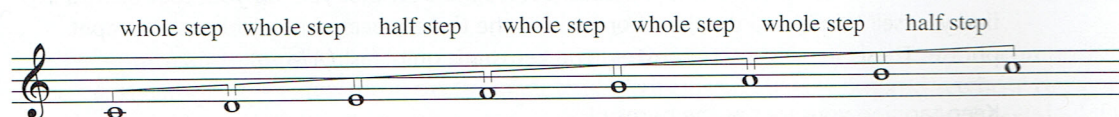
Keynote The melodies we have studied ("Happy Birthday," "America," and "Twinkle, Twinkle, Little Star") have one feature in common, one that is shared by almost every memorable tune: each is dominated by a **keynote**. If you sing "Twinkle, Twinkle, Little Star" and stop at the end of phrase 4 ("like a diamond in the sky"), the melody will sound incomplete. This happens because phrase 4 does not end on the keynote of the melody. The keynote of "Twinkle, Twinkle" comes at the end of the last phrase. Only when you reach that note does the melody sound finished. In "Twinkle, Twinkle" the last note is C. We call the last note the keynote (or **tonic**) of the piece.

Because C is the keynote, "Twinkle, Twinkle, Little Star" can be said to be *in the key of C*.

Keys and Scales Most musical compositions begin and end in the same key, and this provides a sense of stability to the music. A key is a bit like gravity: it keeps everything in place.

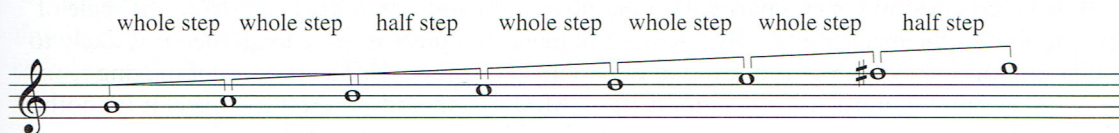
Because the keynote of "Twinkle, Twinkle" is C, the song uses notes from the *scale* of C to form its melody. A **scale** is a group of notes arranged in an ascending or descending order. If you play all the white notes on the piano going up from middle C to the C an octave above it, you've just played a scale—the scale of C major.

MusicNote 8



The C-major scale is made up of a series of half steps and whole steps. Play the scale of C major again, or look at it on the diagram. Between C and D there is a whole step. Between D and E there is a whole step. Between E and F there is a *half* step. F to G is a whole step. G to A is a whole step. A to B is a whole step. B to C is another half step. So the pattern of intervals in this scale is whole, whole, half, whole, whole, whole, half. *All major scales use this same pattern: whole, whole, half, whole, whole, whole, half.* You can create any major scale by starting on any note and reproducing this pattern of intervals.

Try the scale of G major. Start on G and go up, keeping the same pattern of intervals. The pattern again is whole, whole, half, whole, whole, whole, half. Start on G. Then go to A (a whole step from G), then B (a whole step from A), then C (a half step from B), then D (a whole step from C), then E (a whole step from D), then F-sharp (a whole step from E), and finally G (a half step from F-sharp). You'll see that to keep the pattern, you have to use an F-sharp instead of a plain F. So the scale of G major looks like this:



MusicNote 9

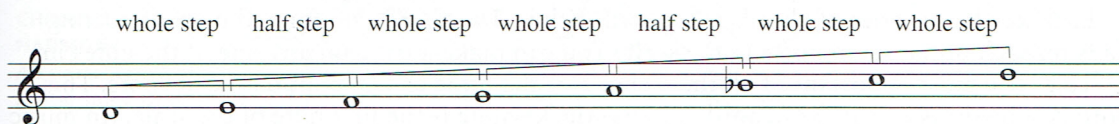
The same pattern applies to any major scale: just start on the keynote and keep the interval pattern exact. You'll see that some major scales need quite a few sharps or flats.

When a composer writes a piece *in the key of C*, he or she uses notes from the C-major scale. Now let's look back at the melody of "Happy Birthday." The melody ends on G, so the keynote is probably G. (Most melodies end on their keynote.) The notes used for this melody are from the G-major scale (G, A, B, C, D, E, F-sharp, G), so "Happy Birthday" is in the key of G.

Major and Minor Scales There are two main types of scales: major and minor. Pieces that use a **major scale** are said to be in the *major mode*; pieces using a **minor scale** are said to be in the *minor mode*. As we will see, there is a difference in sound between the two modes. Many people say that pieces written in major keys sound positive or optimistic and that pieces written in minor keys sound a little sad or thoughtful. That difference is created by *differences in the pattern of the intervals*.

MusicNote 10

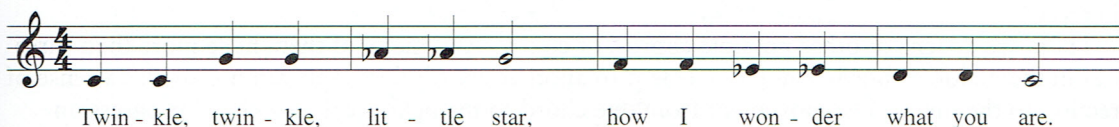
The minor scale uses whole and half steps, but the arrangement is different from that of the major scale. The pattern in the minor scale is this: whole step, half step, whole step, whole step, half step, whole step, whole step. The easiest minor scale is A minor, because it has no sharps or flats. So if you play the white notes on the piano starting on A, you get the minor-mode pattern. But a minor scale can be built on any note, just as a major scale can. Start on D and keep the pattern: *whole step, half step, whole step, whole step, half step, whole step, whole step*. Here's D minor, with the same pattern of intervals: D, E, F, G, A, B-flat, C, D.



MusicNote 11

As you can see, D minor needs one flat. Try building other minor scales. For example, try building C minor. You'll see that C minor needs *three* flats: B-flat, E-flat, and A-flat.

Major-key pieces *sound* different from minor-key pieces. Pieces in a major key usually sound bright, positive, or cheerful, whereas pieces in a minor key sound more serious—even a little sad. Notice the difference in the sound of "Twinkle, Twinkle, Little Star" if we change it from C major to C minor.



MusicNote 12

A well-known song in the minor mode is "All the Pretty Little Horses." This beautiful song is in D minor. And the Beatles' "While My Guitar Gently Weeps" is in the key of A minor.

MusicNote 13

There are many other kinds of scales. For example, a scale that is made up entirely of half steps (all the adjacent black and white notes on the piano) is called the **chromatic scale**. There is also a scale called the **pentatonic scale**, which has only five notes in it. Some Asian music uses the pentatonic scale.

MusicNotes 14-16

Related Keys When we constructed the G-major scale, we needed an F-sharp to keep to the pattern. But there is another key that always has an F-sharp, and that is the key of E minor. If you construct the minor scale on E following the correct interval pattern, you get the following: E, F-sharp, G, A, B, C, D, E. Because they use the same notes, E minor and G major are said to be *related* keys, or *relatives*. (They have different keynotes, though.) Each major key has a relative minor and vice versa. The relative minor of C major, for example, is A minor. (Both have no sharps or flats.) And the relative major of D minor is F major. (Each has one flat.)

When a composition is in a particular key, most of the notes in it are taken from the scale of that key, both in the melody and in the accompaniment. If a piece is quite long, then it is likely to wander into other keys before returning to the home key at the end. The process of moving from one key to another in music is called **modulation**. Modulation adds interest to music. It is another technique that composers use to vary the mood, like changes in tempo or dynamics.

Chords Although melodies can be sung unaccompanied, most of them have accompaniment. Accompaniment adds depth and richness to a melody. **Harmony** is the combination of a melody and its accompaniment. A composer can create different moods and feelings by changing the harmony in a piece of music.

MusicNote 17

A **chord** is formed when three or more different notes are played together. The intervals among these notes determine whether the chord is consonant or dissonant. The most common consonant chord is the **triad**, which consists of one primary note (called the “root”) and two other notes, one a third above it and the other a fifth above it. This is the most frequently used of all chords. Let’s build a triad on the root C. A third above C is E, and a fifth above C is G. So a triad on C would consist of the chord C–E–G.

MusicNote 18

Both of the notes above the root are consonant with it, creating a very stable overall sound. If the notes are played one after another, rather than all at once, the result is called an **arpeggio**. An arpeggio contains the notes of a chord played consecutively rather than simultaneously.

Sometimes composers write a triad with the notes rearranged, so that the third or the fifth, or both, lie *below* the root. The C chord can be spelled E–C–G, or E–G–C, or G–E–C, or G–C–E. All these chords sound slightly different, but the root in each case remains C, because that is the primary note of the triad.

MusicNote 19

Triads can be built on any root. Let’s build a triad on F. A third above F is A; a fifth above F is C. So a triad on F is F–A–C.

Like scales, triads can be either major or minor. The difference depends on whether you count up the major or minor scale to find your chord notes.

Each key has a series of chords associated with it. The chords are formed by constructing triads on each of the seven notes in the scale. You can make a triad on any one of the notes in the scale. The most important of all these chords is the **tonic** chord, built on the keynote. This chord is sometimes called the I chord, because the keynote is the first note of the scale. (In music we use Roman numerals to designate chords.) More often than not, a piece will begin and end with the tonic chord, thereby establishing the key at the beginning of the piece and reaffirming it at the end.

MusicNote 20

The **dominant** chord (chord V) in a key is second in importance to the tonic chord. It is built on the fifth note of the scale; so, for example, the dominant chord in C major is built on G. This chord has the notes G–B–D (root–third–fifth). The dominant chord in any key always sounds as though it requires resolution back to the tonic chord.

The effect of the chord progression I–V–I is the same whether it is played in C major or in any other key.

There are dozens of other possible chords, of course. And many of them have more than three notes in them. Some chords imply movement to another chord; this implication provides a sense of direction to the music. The movement from one chord to the next is called a **chord progression**.

Cadences Cadences in music are like punctuation in grammar. They provide stopping points in the flow of the discourse. Stopping points in grammar have varying degrees of strength. A period marks the end of a sentence. A comma sets off a phrase. A semicolon provides both closure and continuity.

There are three main types of musical cadences: the authentic (or full) cadence, the plagal cadence, and the half cadence. Each consists of a different progression of two chords.

An **authentic or full cadence** consists of a V chord followed by a I chord. It is used to mark the ends of phrases or sections in a composition and to mark the end of the entire piece. You heard several authentic cadences in the *Water Music*.

The **plagal cadence**, on the other hand, consists of a IV chord (known as the **subdominant** chord) followed by a I chord. If you play these two chords consecutively, you will notice that the cadence is not as definitive or forthright as the authentic cadence. The plagal cadence is often called the “Amen” cadence, because it is frequently used to close hymns or liturgical pieces.

Both the authentic and plagal cadences end on a tonic chord (I). The **half cadence** ends on the dominant (V) chord, so it lacks the finality of the authentic and plagal cadences. It may be preceded by a IV chord or a I chord; in either case, it provides a pause at the end of a musical phrase, but not an actual ending. It leaves the listener with the sense that there is more music to come.

Texture An important aspect of harmony is what is known as the **texture** of music. Texture describes the way in which different musical sounds are combined. One kind of texture, for example, is known as **monophony**. Monophony is a texture that involves melody with *no* accompaniment. Monophony can be produced by one or more people. A single person singing in the shower or a family singing in a car is usually singing monophony. Monophonic texture means solo singing or singing in unison.

MusicNote 21

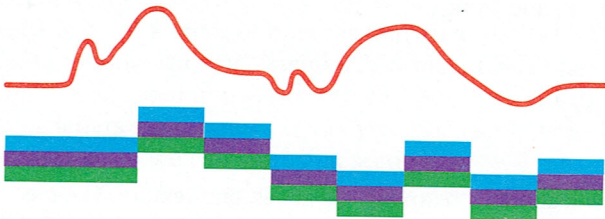
MusicNote 22

MusicNote 23

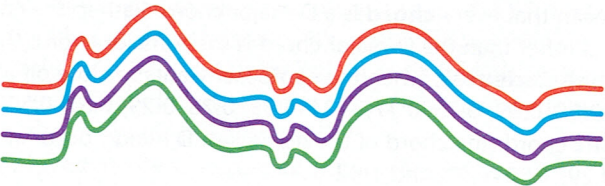
MONOPHONY
A single melody
is heard
unaccompanied.



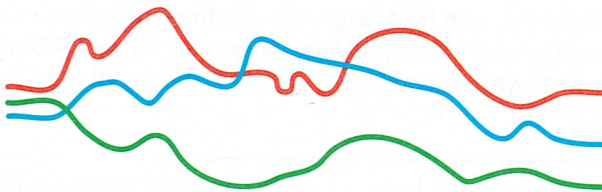
SONG TEXTURE
The melody is
accompanied
by chords.



**CHORDAL
HARMONY**
All parts harmonize
in the same rhythm.



POLYPHONY
Several different
lines of music are
sounded together.



ROUND
Musical lines are
identical but begin
at different times.

