

ANSWERS

A WORLD OF SOUNDS **A** Workbook

Germán Monferrer Quintana
Juan Ángel Picazo López



Cover design: Nina Lloréns
Illustrations and layout: Esperanza Martínez Molina
Translation: Prens Learning, S.L.

© Tabarca Llibres, S.L.

© Germán Monferrer Quintana
Juan Ángel Picazo López

I.S.B.N.: 978-84-8025-397-0
Depósito Legal: V-1455-2015

Printed by:
Artes Gráficas Alcoy, SLU

Published by:
Tabarca Llibres, S.L.
Av. Ausiàs March, 184
Tel.: 96 318 60 07
www.tabarcallibres.com
46026 VALÈNCIA

No reproduction, distribution, public communication or transformation of this work is permitted without the authorisation of the authors, except as established by law. Contact CEDRO (Centro Español de Derechos Reprográficos, www.cedro.org) if you need to photocopy or scan a fragment of this work.



CONTENTS

UNIT 1

Sound. *A world full of sounds* 6

UNIT 2

Pitch and melody. *A name for each sound* 18

UNIT 3

Intensity. *The force of sound* 30

UNIT 4

Timbre. *The colour of music* 44

UNIT 5

Duration. *The value of sounds*..... 56

UNIT 6

The qualities of sound. *The expressive power of music* 68

UNIT 7

Rhythm. *The beat of music* 84

UNIT 8

Texture and harmony. *The fabric of music*..... 100

UNIT 9

Listening. *The message of music*..... 114

List of rhythm practices and musical creation 128

List of musical and orchestral tracks 129

List of listening exercises 130

A WORLD OF SOUNDS A

UNITS	1. MUSICAL AND CULTURAL CONTEXTS. LISTENING	2. MUSICAL CREATION AND PRACTISE
UNIT 1 SOUND. A world full of sounds	Sound The auditory system The auditory function in a few animals The use of sound in musical compositions Curiously enough Activities 7 videos, 17 listening exercises	2.1. Rhythm creation Semibreves, breves, crotchets and rests 4 listening exercises 2.2. Rhythmic practise Song: <i>Introito</i> Activities
UNIT 2 PITCH AND MELODY A name for each sound	Pitch The names of tones and their placement on the staff The placement of notes above and below the staff Ordering sounds. Scales. Melody Intervals Curiously enough Activities 6 videos, 37 listening exercises	2.1. Rhythm creation Quavers, two beamed quavers, four beamed quavers and quaver rest 4 listening exercises 2.2. Rhythm practise Song: <i>Corchet</i> Activities
UNIT 3 INTENSITY The force of sound	Intensity Loud and soft sounds Dynamics and dynamic markings Noise pollution Curiously enough Activities 5 videos, 23 listening exercises	2.1. Rhythm creation Dots and ties 4 listening exercises 2.2. Rhythm practise Song: <i>Y punt!</i> Activities
UNIT 4 TIMBRE The colour of music	Vocal timbre The vocal tract Voice classification The timbre of instruments Curiously enough Activities 9 videos, 36 listening exercises	2.1. Rhythm creation Semiquavers 4 listening exercises 2.2. Rhythm practise Song: <i>Brevis</i> Activities
UNIT 5 DURATION The value of sounds	Short and long sounds Musical notations Repeat signs. Curiously enough Activities 1 video, 10 listening exercises	2.1. Rhythm creation Review notes and duration modifiers 4 listening exercises 2.2. Rhythm practise Song: <i>Conventional</i> Activities
UNIT 6 THE QUALITIES OF SOUND The expressive power of music	The qualities of sound Descriptive or programme music Curiously enough Activities 10 videos, 23 listening exercises	2.1. Rhythm creation Dotted quavers 4 listening exercises 2.2. Rhythm practise Song: <i>Tinri-ritin</i> Activities
UNIT 7 RHYTHM The beat of music	Ordered contrast Beat Rhythm in music Musical beat Musical rhythm and beat in musical listening exercises Time signatures Curiously enough Activities 8 videos, 16 listening exercises	2.1. Rhythm creation Syncopation 4 listening exercises 2.2. Rhythm practise Song: <i>Sincopando</i> Activities
UNIT 8 TEXTURE AND HARMONY The fabric of music	Texture Harmony Curiously enough Activities 4 videos, 9 listening exercises	2.1. Rhythm creation Triplets 4 listening exercises 2.2. Rhythm practise Song: <i>Le llositrè</i> Activities
UNIT 9 LISTENING The message of music	How to listen to music Identifying the character of a musical work Curiously enough Activities 4 videos, 9 listening exercises	2.1. Rhythm creation Missed-beat syncopation 4 listening exercises 2.2. Rhythm practise Song: <i>Ritmica</i> Activities

	3. MUSICAL INTERPRETATION	4. MOVEMENT AND DANCE
2.3. Melody practise Left hand Right hand 2.4. Melody creation Composition and improvisation with the left hand and both hands Activities	<i>Branle de Champagne</i> (left hand) <i>When the Saints Go Marching In</i> (sing and play) <i>Prelude</i> , Bach (both hands) <i>Scarborough Fair</i> (for 2 voices) 2 videos	Choreography I Hip-hop
2.3. Melody practise Practise Bb 2.4. Melody creation Composition and improvisation with Bb Activities	<i>The Last of the Mohicans</i> (for 2 voices) Orff Instrument <i>Beauty and the Beast</i> (sing and play) <i>Avatar</i> 3 videos	
2.3. Melody practise Strengthen your Bb 2.4. Melody creation Composition and improvisation with Bb. Activities	<i>Jingle Bells</i> (sing and play) <i>Moon River</i> (for 2 voices) <i>Gladiator</i> 3 videos	Choreography II House
2.3. Melody practise Practise F# 2.4. Melody creation Composition and improvisation with F# Activities	<i>We Will Rock You</i> <i>Supercalifragilisticexpialidocious</i> (sing and play) <i>Blowin' in the Wind</i> (for 2 voices) 3 videos	
2.3. Melody practise Practise high E 2.4. Melody creation Composition and improvisation with high E Activities	<i>Let It Be</i> (for 2 voices) <i>I'm a Believer</i> <i>Déjame</i> (sing and play) Orff Instrument 3 videos	Choreography III Comeb. K.
2.3. Melody practise Strengthen your high E and F# 2.4. Melody creation Composition and improvisation with high E and F# Activities	<i>Pirates of the Caribbean</i> <i>El ciclo de la vida</i> (sing and play) <i>Romeo and Juliet</i> (for 2 voices) 3 videos	
2.3. Melody practise Practise G# 2.4. Melody creation Composition and improvisation with G# Activities	<i>The Neverending Story</i> <i>Flash Dance</i> (for 2 voices) <i>Where Is Your Heart? Moulin Rouge</i> (sing and play) 3 videos	Choreography IV Latin pop
2.3. Melody practise Strengthen your sharps and flats (Bb, F# and G#) 2.4. Melody creation Composition and improvisation with various sharps and flats (Bb, G# and F#) Activities	<i>Star Wars</i> (triplets) <i>Cuéntame</i> (sing and play) Orff Instrument <i>Yesterday</i> (for 2 voices) 3 videos	
2.3. Melody practise Practise high F 2.4. Melody creation Composition and improvisation with high F	<i>Es la noche del amor</i> (sing and play) <i>Les avions en papier</i> (for 2 voices) <i>It's a Small World</i> 3 videos	Choreography V Compilation

1. Sound

A world full of sounds



BLOCK 1 MUSICAL AND CULTURAL CONTEXTS. LISTENING

1.1. SOUND

1. From the information given in your Student's Book, write your own definition of "sound".

Sound is a sensation in our brains produced through the ears which pick up vibrations of sound-producing bodies. Whenever there is a sound, there is an object that vibrates in some way.

2. Answer the following questions:

- a. How fast does sound travel through the air? *343 m/sec: 1,235 kph*
- b. Does sound travel at the same speed through everything? *No.*

Give reasons for your answer. *The speed of sound depends on the medium through which the sound waves travel. The higher the density of the medium, the higher the speed of the sound waves.*

3. Look at your music room and answer the following questions:

- a. Do you think your music room is suitably soundproofed? _____ Why? _____

Free answer.

- b. Do you think it has good acoustics? Give reasons for your answer. _____

Free answer.

- c. Do you think it is properly arranged as far as space is concerned? _____ Do you think it needs anything else? _____ Why or why not? _____

Free answer.



1.2. THE AUDITORY SYSTEM






4. Order the following sentences to explain how we perceive sound.

- Vibrations are transformed into electrical impulses conveyed to the brain.
- Vibrations transmitted from the eardrum are picked up by the ossicles (hammer, anvil and stirrup).
- The outer ear receives sound.
- The sound is channelled to the eardrum.
- Vibrations are transmitted to the cochlea in the inner ear, containing fluid.
- The eardrum receives a sound vibration.

1. *The outer ear receives sound.*
2. *The sound is channelled to the eardrum.*
3. *The eardrum receives a sound vibration.*
4. *Vibrations transmitted from the eardrum are picked up by the ossicles (hammer, anvil and stirrup).*
5. *Vibrations are transmitted to the cochlea in the inner ear, containing fluid.*
6. *Vibrations are transformed into electrical impulses that are conveyed to the brain.*





5. Our brains have a function called the auditory memory, which relates auditory stimuli to memories so we can recognise them again.

Here are some sound fragments from different situations. Listen carefully and see if you can recognise them and visualise them in your head.

Sound fragment	Place, situation
 Listening 1	<i>Wind</i>
 Listening 2	<i>Sounds in a city</i>
 Listening 3	<i>Rainstorm</i>
 Listening 4	<i>Racetrack</i>
 Listening 5	<i>Waves on the shore</i>

6. Using our auditory memory we can recognise things or animals by the sound they produce without necessarily seeing them.

See if you can tell what things make the following sounds.

Sound fragment	Object making sound
 Listening 6	<i>The song of a bird (nightingale)</i>
 Listening 7	<i>The sound of an engine</i>
 Listening 8	<i>A dog barking</i>
 Listening 9	<i>Bells ringing</i>
 Listening 10	<i>A wolf howling</i>
 Listening 11	<i>A ship's siren</i>

1.3. THE AUDITORY FUNCTION IN A FEW ANIMALS

7. Say whether these sentences are true (T) or false (F).

- ☐ F The human ear can hear all kinds of sounds, however high or low they are.
- ☐ T Bats are capable of flying in the total darkness as they navigate by sound, not by sight.
- ☐ F Worms have highly developed ears that are capable of perceiving sounds over long distances.
- ☐ T It is said that elephants are capable of hearing very low frequency sounds over long distances – the kind produced by the footsteps of other elephants.
- ☐ F The bigger the animal the better they can hear high frequencies. The smaller the animal the better they can hear low frequencies.



1.4. THE USE OF SOUND IN MUSICAL COMPOSITIONS

8. Classify the following sound fragments as definite pitch sounds (musical sound) or indefinite pitch sounds (noise).

Sound fragment	Classification
 Listening 12	<i>bird songs (indefinite sound)</i>
 Listening 13	<i>piano (definite pitch)</i>
 Listening 14	<i>helicopter whirring (indefinite sound)</i>
 Listening 15	<i>flute (definite pitch)</i>

9. a. Explain what “noise” is. _____

It is sound without a definite pitch and therefore cannot be represented on a musical score in a rhythmic way.

- b. Make a list of sounds that you think are unpleasant or bothersome when you are at home. _____

Free answer.

10. Explain the most important difference between noise and sound.

The most important difference between noise and sound is that musical sound has a frequency that can be measured in waves per second (hertz), whereas noise is so irregular that it cannot really be measured.

We have already said that some composers use sounds that are not initially related to music in their works, but which are fully integrated into their musical compositions.

Listening 16

The Typewriter Leroy Anderson

11. a. Listen to this exercise and say what instrument you can hear in this work, which is not normally heard in conjunction with an orchestra. *A typewriter*

- b. Do you think its sound can be called “noise”? *Yes* Why or why not? _____

Because they are only sounds of an undetermined pitch.

- c. How would you classify it, as pleasant or unpleasant? *Pleasant.*

Why? *Because they are perfectly integrated in the composition.*

Listening 17

Toy Symphony Leopold Mozart

In this exercise, in addition to the orchestra, you can hear the sounds of a few toys. As you will notice, although they are noises, they are perfectly integrated in the composition, as composed by Leopold Mozart, the father of Wolfgang Amadeus Mozart.



12. Listen to this fragment carefully and write the names of the toys you can hear. _____

A toy trumpet, a flute, a water bird, a ratchet.

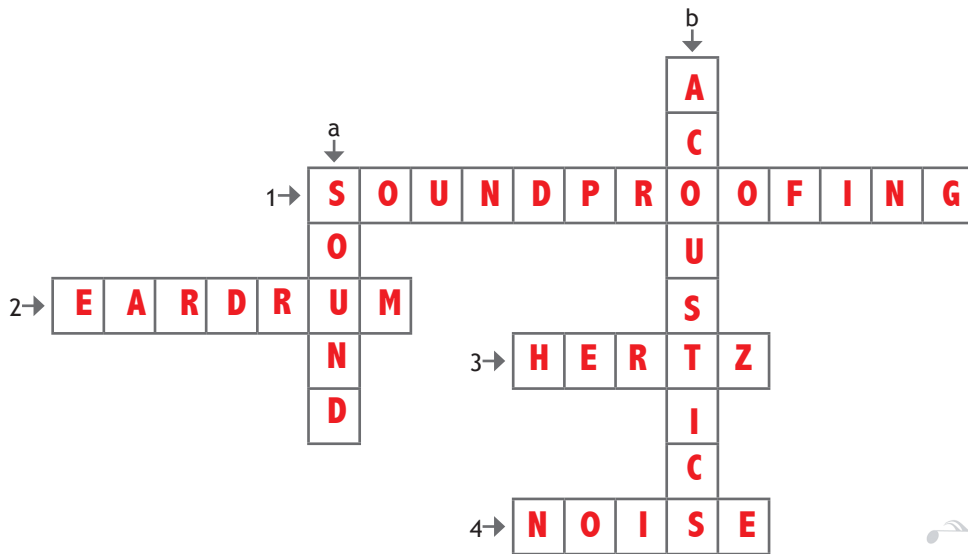
13. Now that you know more about sound, the auditory system and how sounds are used in musical compositions, complete the sentences below and you'll be able to do the crossword puzzle.

Horizontal

1. Architectural process used to diminish the volume of sound in places where high volume music is played. **soundproofing**
2. The place where sound is channelled after being received in the outer ear.
eardrum
3. Name of the unit of measure of wave frequency. **hertz**
4. Name given to the vibratory waves of irregular frequency. **noise**

Vertical

- a. Sensation in our brains produced through the ears which pick up vibrations from bodies through air, water or metal. **sound**
- b. Science that studies phenomena related to sound. **acoustics**



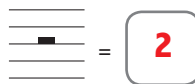
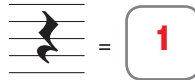
BLOCK 2 MUSICAL CREATION AND PRACTISE

2.1. RHYTHM CREATION

1. Draw the note corresponding to each rest.



- 2. Write the number of beats corresponding to the duration of each note or rest.**



- 3. Complete the bars with the notes you think are appropriate.**



4. Draw in bar-lines. Now write in the rhythmic syllables for each note.



5. Interpret the rhythms (you can use rhythmic syllables to help). Now listen to them and put them in the right order. Remember that some of these rhythms are in the song *Introito*, and it will help you to prepare this exercise.



Listening 18

Listening 19

Listening 20

Listening 21

2

4

1

3

2.4. MELODY CREATION



6. **COMPOSITION.** “Play around” with your left-hand notes and compose a melody that you can play over a musical accompaniment.

1 2 3 4 5

Below the first staff are four empty staves for writing a melody.

7. **IMPROVISATION.** Try to improvise a melody with the sounds you have learned in this unit. The sounds are presented in an orderly manner, but you can interpret them in any order you want. As for notes, although semibreves are used in the scale given here, you can use notes of different duration in your interpretation, as this will make it more varied.



IMPROVISING WITH THE LEFT HAND

1 2 3 4 5



8. **COMPOSITION.** Now you can make a composition for two hands. Use the notes in the following scale and then play over the musical accompaniment.



9. **IMPROVISATION.** Try to improvise a melody with the sounds you have learned in this unit. The sounds are presented in an orderly manner, but you can interpret them in any order you want. As for notes, although semibreves are used in the scale given here, you can use notes of different duration in your interpretation, as this will make it more varied.



IMPROVISING WITH BOTH HANDS



MUSIC AND TECHNOLOGIES

The CD ROM provides a series of activities in which you can practise what you've learned in this Unit.

