



# Information & Communication Technology

First Term

## Let's Work with Audio Files Further Learning Module

**6**  
Grade

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ගෙනු සමග වැඩ කරමු - වැඩිදුර මොඩියුල (ඉ) - 6 ශ්‍රේණිය

தகவல் மற்றும் தொடர்பாடல் தொழினுட்பவியல்  
கேட்பொலிக் கோப்புகளுடன் பணிபுரிவோம் -  
முதலாம் தவணை - மேலதிகக் கற்றலுக்காக (ஆ) -  
தரம் 6

SC06FL1E -2026/334/15,000

Department of Information Technology  
Faculty of Science & Technology  
National Institute of Education  
Maharagama  
Sri Lanka  
[www.nie.ac.lk](http://www.nie.ac.lk)

Printing & Distribution: Educational Publications Department

## The National Anthem of Sri Lanka

Sri Lanka Matha

Apa Sri Lanka Namō Namō Namō Namō Matha

Sundara siri barinee, surendi athi sobamana Lanka

Dhanya dhanaya neka mal palaturu piri jaya bhoomiya ramya

Apa hata sepa siri setha sadana jeewanaye matha

Piliganu mena apa bhakthi pooja Namō Namō Matha

Apa Sri Lanka Namō Namō Namō Namō Matha

Oba we apa vidya

Obamaya apa sathya

Oba we apa shakthi

Apa hada thula bhakthi

Oba apa aloke

Apaga anuprane

Oba apa jeevana we

Apa mukthiya oba we

Nava jeevana demine, nithina apa pubudukaran matha

Gnana veerya vadawamina regena yanu mana jaya bhoomi kara

Eka mavakage daru kela bevina

Yamu yamu vee nopama

Prema vada sema bheda durerada

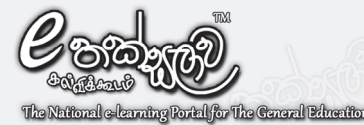
Namō, Namō Matha

Apa Sri Lanka Namō Namō Namō Namō Matha

අධ්‍යාපන ප්‍රකාශන දෙපාර්තමේන්තුව විසින් සකස් කරන ලද විඩියෝ ටී නක්සලාව වෙබ් අඩවිය හා යූටියුබ් වැනලය මගින් නැරඹිය හැකිය.

கல்வி வெளியீட்டுத் திணைக்களத்தினால் ஆக்கப்பட்ட வீடியோக்களை e- Thaksalawa இன் இணையத்தளம் மற்றும் youtube அலைவரிசைகளினூடாகப் பார்வையிட முடியும்.

Videos produced by the Educational Publications Department can be viewed via the website and the YouTube channel of e - thaksalawa.



<https://www.e-thaksalawa.moe.gov.lk/>



<https://youtube.com/c/ethaksalawa-official>



<https://moe.gov.lk/students/nenasa-tv/>

අන්තර්ක්‍රියාකාරී පාඩම්, විඩියෝ පාඩම්, ශ්‍රව්‍ය ඉගෙනුම් ආධාරක, ක්‍රියාකාරකම් පත්‍රිකා, මාර්ගගත ප්‍රශ්නාවලි, පෙළපොත, අධ්‍යාපනික විනෝදාත්මක වැඩසටහන්, මාර්ගගත පාඨමාලා ඇතුළු තවත් අධ්‍යාපනික වැඩසටහන් සඳහා පිවිසෙන්න.

ஊடாரும் பாடங்கள், வீடியோப் பாடங்கள், செவிப்புல கற்றல் உதவிகள், செயலட்டைகள், நிகழ்நிலை வினாக்கள், பாடநூல்கள், கல்விசார் பொழுதுபோக்கு நிகழ்ச்சிகள், நிகழ்நிலை பாடநெறிகள் உட்பட மேலும் கல்விசார் நிகழ்ச்சிகளின் நிமித்தம் பிரவேசியுங்கள்.

Access for interactive lessons, video lessons, audio learning aids, activity sheets, online quizzes, textbooks, educational entertainment programs, online courses and more educational programs.



National Institute of Education  
**Channel NIE**



ජාතික අධ්‍යාපන ආයතනය  
தேசிய கல்வி நிறுவகம்



විඩියෝ වැඩසටහන්, පෙරහුරු ප්‍රශ්න පත්‍ර, ප්‍රායෝගික පරීක්ෂණ සහ සම්පත් සොත් යනාදී වටිනා අධ්‍යාපනික සම්පත් සඳහා පිවිසෙන්න  
வீடியோ நிகழ்ச்சிகள், பயிற்சி வினாத்தாள்கள், செய்முறைச் சோதனைகள், வளநூல்கள் போன்ற பெறுமதியான கல்விவளங்களுக்காகப் பிரவேசியுங்கள்  
Visit us for valuable educational resources; video programs, practice question papers, practical tests and resource books

This book is a gift from the Government to the young generation of our country. Please use it carefully so that it could be passed on to your brothers and sisters in the coming years.

Name of the School : .....

Year	Name of the Student who is using the book	Class	Signature of the class teacher
2026			
2027			
2028			
2029			

# Information and Communication Technology

First Term

## Grade 6

Department of Information Technology  
Faculty of Science and Technology  
National Institute of Education  
Maharagama  
Sri Lanka  
[www.nie.ac.lk](http://www.nie.ac.lk)

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Information and Communication Technology - Grade 6

First Term

Further Learning Module

**Let's Work with Audio Files**

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## **Message from the Director General of National Institute of Education**

The General Education Transformative Reform Effort in Sri Lanka aims to create a decisive pathway to meet the needs of every learner. The foundation of this reform lies in the modernization of curricula, teaching–learning methodologies, and assessment systems, with a strong emphasis on competency-based learning, critical thinking, creativity, 21st-century skills, technological orientation, and ethical citizenship.

The contribution of the Hon. Prime Minister; the Secretary to the Ministry of Education; Additional Secretaries; Subject Directors; the Commissioner General of Examinations and the staff; and the Commissioner General of the Educational Publications Department and the staff, who worked with exceptional dedication, has been immense in ensuring the quality of the curricula and related learning materials proposed for implementation from the year 2026 for Grades 1 and 6. These materials have been developed by the National Institute of Education through a collaborative dialogue with educationists, interdisciplinary experts, teachers, and various stakeholders.

I also gratefully acknowledge the exceptional commitment of the Council and the Academic Affairs Board of the National Institute of Education during this initiative. The entire staff of the National Institute of Education, who have contributed immensely in accomplishing this task, deserve the respect of the nation.

Prof. Manjula Vithanapathirana  
Director General  
National Institute of Education  
11.08.2025

## **Message from the Commissioner General of Educational Publications**

The world today is progressing at an exceptional pace, driven by innovation and transformation. In parallel, it is the paramount responsibility of everyone involved in the field of education to equip schoolchildren with the skills necessary to face the challenges of the modern world. Accordingly, must be noted with pride that the opportunity to introduce the module-based learning approach aligned with the new curriculum to be implemented from the year 2026 is a significant achievement.

These specially designed learning aids for each subject aim to strengthen essential skills such as critical thinking, creative problem-solving for complex issues, analyzing information from multiple perspectives, and making logical decisions. I believe these resources will serve as a strong foundation for each subject.

I kindly request all of you to use these learning aids as a guiding light to help realize the noble dreams of a generation of students enriched with wisdom and virtue. I also extend my heartfelt gratitude to everyone who contributed immensely to the excellent task of compiling the modules and activity books.

D. A. Subhashini Dematagoda  
Commissioner General of Educational Publications  
Educational Publications Department,  
Isurupaya,  
Battaramulla.  
11.08.2025



# Foreword

Broad learning areas identified with regard to the total school curriculum reflect the ability of a nation to overcome the challenges emerging for sustainable development in a continuously changing country and a world. Besides, broad learning areas need to be identified in synchrony with the demands changing from time to time. This not only modernizes the subjects in the prevailing school curriculum but also introduces new subjects to the school curriculum. It is clear that learning teaching process too should develop timely corresponding to these changes taking place. As a result of this, under the new curriculum that will be implemented with effect from 2026, learning - based modules have been introduced for every subject from grade 6 upwards. For the primary grades and the junior secondary grades, it has been proposed to introduce the new curriculum as follows: for grades 1 and 6 in 2026, grades 2 and 7 in 2027, grades 3 and 8 in 2028, grades 4 and 9 in 2029 and grades 5 in 2030. Modules containing new learning methodologies have been prepared from the junior secondary level and the teacher is expected to give guidance for the learner. The modules have also created the environment essential for self - learning. It is our belief that these modules are much helpful to develop strongly the knowledge on the concepts required for the students and their abilities and interests while directing them to apply the acquired knowledge to pragmatic situations. The learning transferred by these modules will also help strengthen the literacy, interpersonal relations and values necessary for the 21st century.

Every module indicates the guide to use modern technology. They also will provide students assessment tools needed to evaluate transparently the performance and educational objections achieved by them. Always, every module is very important to give guidance for a real learning applying new talents and knowhow to applied situations. I also wish to remind that the service rendered by the teachers, in-service advisers, directors as well as the contribution given by the government and private institutions through respective fields helped raise the quality of these modules. Further, I state that the suggestions made through the practical experience gained in the use of these modules are momentous and I respectfully invite you are all it.

**K. Rajith Pathmasiri**

Deputy Director General

Faculty of Science and Technology

08.08.2025

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# Introduction

In today's fast-paced, technology-driven environment, the need for ICT skills has become indispensable. This further learning module is crafted to enhance student's abilities and skills by the end of grade 6, with a focus on preparing them for the demands of a rapidly evolving world. Each module includes tailored exercises and guides designed to ensure students' understanding, alongside self-directed learning activities that accommodate different learning paces and schedules. This module can be followed by students who are interested in learning ICT and expanding their knowledge further. Collaborative learning is emphasized, encouraging students to work with peers to achieve their goals. The ultimate aim of this module is to equip students with the skills needed for success in the 21st century, carefully considering their individual needs and supporting their holistic development.

In addition, various websites and YouTube links are provided here to facilitate the completion of the activities and exercises included in this module, and to further enhance knowledge. I extend my heartfelt thanks to the respective content owners.

Mr. S. Shanmugalingam  
Director, Department of Information Technology

## Further Learning Module

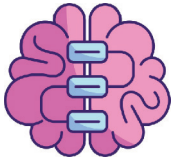
Handling audio files is an essential part of the multimedia editing process, such as in animation and video production. Before editing, it is important to identify the different types of sounds included in the audio files. This module explains the process – from recognizing sounds to recording audio files and editing them by applying various quality enhancements.

## Instructions to use the Modules

- This module is designed to help you, apply your basic knowledge of editing audio files and to develop practical skills in using audio software in everyday life.
- Includes online searching activities and assignments to improve your skills and knowledge.
- Your teacher will guide you throughout the modules but it is your responsibility to follow it yourself
- Completing given activities and assignments is very important as you will be assessed from the daily classroom activities and assignments
- You have to assess yourself and with peers on the performance of completing activities and assignments
- Be honest, impartial and accurate when assessing yourself and your peers
- At the end of a unit, the level of skills you have achieved will be evaluated by the teacher.

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# Learning outcomes

At the end of this module, you will be able to

- To use the various technical tools required for audio recording
- Understand how to setup a suitable environment for recording
- Practice ethical and moral behaviours at a recording location
- Record an audio clip using software
- Edit a recorded audio clip as needed
- Edit an imported audio clip as needed
- Export the recorded audio clips to various audio file formats
- Use shortcut keys to navigate an audio track
- Add additional audio segments to an audio file
- Import multiple audio files into an audio editing software
- Use different audio file formats
- Understand basic concepts such as audio, audio recording, audio clip, audio file format, audio track, ethical behaviours
- Analyze the characteristics and significance of various environmental sounds in different contexts.
- Evaluate the impact of computer-based entertainment on various aspects of daily life.



# Let's Work with Audio files

We are the world....  
We are the children...

Song by – “USA for Africa” Music Team



Dear Children,

You have heard this song, haven't you? Do you know that we can listen to this song, as they have been recorded and saved by using the technology?

If you want to listen to that song you can use the following QR code or the youtube link



**Scan This**



**Type This**

[https://www.youtube.com/watch?v=O6cE4DJUb\\_o](https://www.youtube.com/watch?v=O6cE4DJUb_o)

This website was last accessed on 2025-06-09





Do you know that we can record our own voices just like we recorded this song? In the same way, you can listen to the environment and record beautiful bird songs. It is not only just recording these sound clips, we can also use a computer to remove the unwanted parts in the recorded clip by using software, or record the required parts separately and make our soundtrack even more beautiful.

Recording songs is also a complex process. In this module we will learn how to make a sound recording and make the necessary changes.

### Do You Know?

- QR (Quick Response) codes can be scanned with a QR scanner app and get the information embedded into them. In this process the web link of any video has been converted into a QR code. If your smart phone has internet access you will be able to access the data by scanning the QR code.
- You can access that information by typing the web link given below on the youtube search box.
- If you find any QR codes or URLs in this module, follow the above method to access them.

Let's see how is a song recorded in a studio.

<https://www.youtube.com/watch?v=gwVduYHIayA>



This website was last accessed on 2025-06-09



# 1

## Let's Listen & be Sensitive to the Sound

### Performance Standard

Identifies various sounds in the environment.

‘Sound’ is a media component and we all are sensitive to the sounds. Have you heard the sound of the rain? The ‘ho’ ‘ho’ sound? But sons and daughters, have you ever listened sensitively to

- Buzzing sound of bees,
- Flapping sound of the wings of birds,
- Roar of the waves of the sea,
- Rustling sound of trees with the blowing wind,
- Chirping of birds



Have you ever thought of listening to the sound of petals of a blossoming flower? Now train yourself to be sensitive to such sounds you hear in the environment.



“Music is Organized Sound”  
(Edgard Varese)





## Activity 1.1

Discuss with your friends and make a list of any sounds you or your friends have heard in the normal day to day life and present it to the class.

(25 minutes)

### Do You Know?

Sound was recorded for the first time in the history by Edouard-Leon Scott de Martinville in the late 1850's in Paris nearly two decades before Alexander Graham Bell's first telephone call (1876).

For more information regarding the historic sound, scan the QR code or go to the following link.



<https://tinyurl.com/oldsoundrecord>



This website was last accessed on 2025-06-09



## 2

# Let's Identify Audio Devices

## Performance Standard

Identifies the basic digital devices involved in sound recording.

Dear sons and daughters, do you know that whether a sound is produced naturally or artificially. We need various technological tools to record and listen to it using digital devices.

## Do You Know?

### Waveform

When an audio file is inserted into a software, it is displayed graphically as follows. We call it as the waveform. You can learn the scientific background of it in science subject in future grades.



## Pre Preparation

With the help of an adult, observe the colour differences in the audio ports on a television.





## Activity 2.1

- Group according to the teacher's instructions.
- Discuss about the audio devices given to your group by the teacher.
- Discuss with your group and identify the audio devices which has given to you.
- Connect that devices correctly to the computer with the help of the teacher
- Discuss the tasks of those devices among group members  
(25 minutes)



### Activity 2.1.1

Identify the technical devices and state the function of each device given below



Name of the device/devices

.....  
.....  
.....

Function

.....  
.....





Name of the device/devices

.....

.....

Function

.....

.....



Name of the device/devices

.....

.....

Function

.....

.....



### Activity 2.1.2

Identify the colour of each sound port below, and select the correct device which has connected to each port from the list and write it on the blanks.



.....

**(speaker/sound output, microphone, sound input)**



## Self -Assessment

Assessment Criteria:

- Connect Audio Devices accurately.

Mark “✓”symbol in the box infront of the tasks you can perform.

Subject Content	Task	“✓”Symbol
	1. I can select sound devices.	
	2. I can select different ports according to its colour.	
	3. I can choose the correct device to connect based on the colour of the port.	
	4. I can name the sound devices.	
	5. I can connect sound devices to the correct ports on the computer.	
Number of “✓” symbols		
Your marks		..... /5

If total number of “✓” symbols is 5	Excellent
If total number of “✓” symbols is 4	Good
If total number of “✓” symbols is 3	Close to the expected goal
If total number of “✓” symbols is 2	Need improvement





# 3

## Let's Record Sound.

### Performance Standards

Recording a simple audio clip using a sound editing software.

If you want to listen to a sound again and again, it needs to be recorded. In the old days,

- Cassette Tapes
- Gramophone Disks are used to record sound.



Figure 3.1- Cassette



Figure 3.2 - Gramophone

Today, high quality digital recordings are being made, and in addition to recording equipment, support of the software is essential.

### Audio recording devices

- Microphones
- Speakers
- Headsets/ Headphones



## Pre-Preparation

Bring a written note of the following, to do the recordings for Activity 3.1

- a morning thought
- lyrics of the school song
- a message or a song
- an announcement



### Activity 3.1

Make a recording using a voice recorder/sound recorder software on the topic of your group related to following list and present it to the class.

- A poem in the text book
- School Anthem to be played in the morning assembly a morning thought
- A song/message to be played during the interval to the whole school
- A school announcement

(50 minutes)





## Activity 3.2

- Listen to the audio file again which you have recorded in activity 3.1
- According to that identify any mistakes in your recording. Then discuss how the environment should be prepared for a good sound recording and list down your suggestions
- Make a list of ethics to follow in a recording studio
- Present your group's findings to the class.

(50 minutes)

### Do You Know?

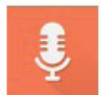
**Voice Recorder apps** - Several audio recording applications for the Android operating system



Dolby on



ASR Voice Recorder



GOM Recorder



Voice Recorder

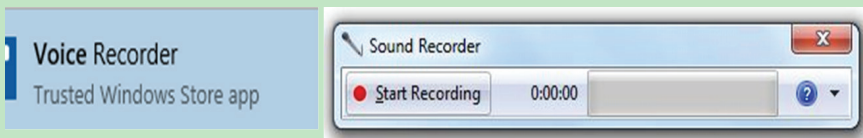


## For your knowledge

Let's identify the software that used in sound editing.

### Recording with Voice Recorder/Sound Recorder

You can open Voice Recorder/ Sound Recorder by searching one of those two names in the search box.



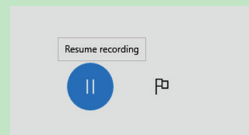
- You can start recording by clicking on the following icon in the recorder interface.



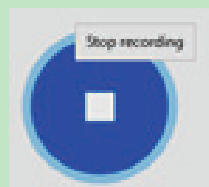
- To pause (temporarily stop) the recording, you can use the Pause recording button.



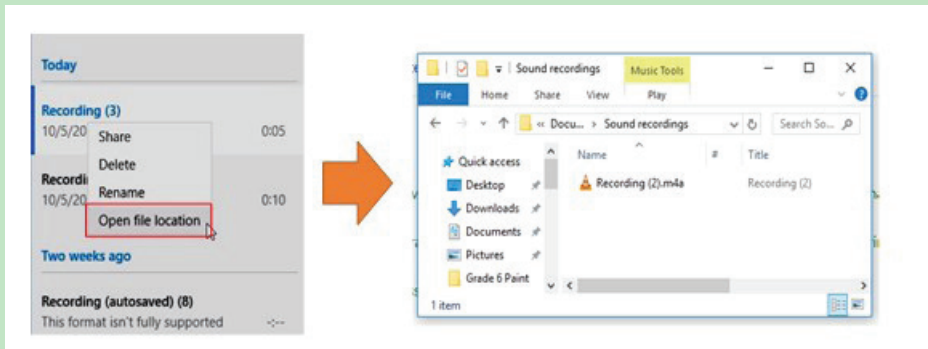
- To resume (restart after pause) the recording, you can use Resume button.



- To finish recording, you can use the Stop recording button.



- To find where the recorded file is saved, Right click on the name of the recorded file and select ‘open file location’ from the menu.



When recording a dialogue, try to record the dialogue with different emotions and styles. Then it will have different meanings.

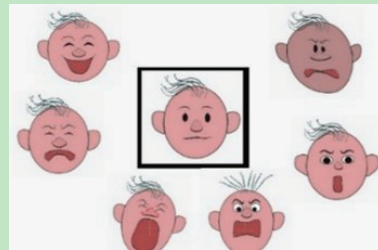


Figure 3.3 - Different Emotions

Ex - You can try to pronounce the phrase “I am hungry” impulsively, pleadingly and casually.

It is very important to prepare the environment properly for sound recording. When recording sound on a commercial scale, special recording studios are used. They are carefully designed to prevent external noise and create quiet space for high quality recordings. These studios are sound proofed and built using various technologies to control sound. They are equipped with high-tech microphones, a variety of sound recording machines, and a code of ethics that must be strictly adhered to the use of these studios.





### Activity 3.3

- Adjust the environment to minimize the shortcomings identified in activity 3.2
- Re-record the audio file you recorded with your group in activity 3.1 and present it to the class. (50 Minutes)

#### Do You Know?

NASA has recorded the sound of the sun and adjusted it to the human auditory range. You can use the QR code below or the YouTube link given below to listen to that exclusive audio.

[https://youtu.be/CRu\\_hG3X3bI?si=Ld-x\\_yesFhSvanY5](https://youtu.be/CRu_hG3X3bI?si=Ld-x_yesFhSvanY5)



This website was last accessed on 2025-06-09

‘shotgun’ microphone is normally used in the film industry.



Figure 3.4 - Shotgun microphone



Self -Assessment		
Assessment Criteria: Recording audio using sound editing software.		
Mark "✓" symbol in the box infront of the tasks you can perform.		
Subject Content	Tasks	"✓" Symbol
	1. I can select suitable devices for recording sound.	
	2. I can connect a suitable device to the computer for sound recording.	
	3. I can record sound using the computer and troubleshoot errors that occur.	
	4. I can create a suitable environment for Audio recording.	
	5. I can select suitable software to record sound.	
Number of "✓" symbols		
Your marks		..... /5

If total number of "✓" symbols is 5	Excellent
If total number of "✓" symbols is 4	Good
If total number of "✓" symbols is 3	Close to the expected goal
If total number of "✓" symbols is 2	Need improvement





# 4

## Lets Edit Audio.

### Performance Standard

Edits an imported sound clip using audio editing software.

Audio files are created by recording sound or voice. The software used to create and edit these audio files using computers are named as audio editing software.

### Audio Editing Software

There are some free software programs that you can use to record and edit sound.

- Audacity
- Power Sound Editor
- Music Editor Free

There is also commercial software like Adobe Audition.

### Do You Know?

Before recording, no matter how familiar you are with the message or subject, it should be clearly written down on paper. In other words, you must have a script.





### Activity 4.1

- Divide the class in to two groups
- First group, recite the received poem
- The second group should listen to it carefully with their eyes closed.
- While the first group is singing, other members of the group should make some slight sounds time to time. (According to Teacher's instructions)
- At the end, the second group should state when they heard unwanted sounds during the first group's singing.
- In the same way the second group should recite while the first group listens as in the earlier case. At the end the first group should state the unwanted noises heard during second group's performance.

(50 minutes)

### For Your Knowledge

To edit audio clip, you need to train your ears to be able to recognize unwanted sound(noise). This will help you easily identify and remove unwanted sounds and create a quality audio clip.

### Pre-preparations

Prepare a suitable script to announce the changes of school periods and bring it to the class. (In your mother tongue and in English)

Eg: **"This is the begining of the first period."**

"மே ஐரமீத வன்தை பல்லி காலவிகேடயமி"

"இப்போது முதலாம் பாடவேளை ஆரம்பமாகின்றது"





## Activity 4.2

- Using audio editing software, create an audio clip in two languages informing that the period is over and the next period has started
- Play and listen to the audiotrack
- Save the recording in the computer
- Present your recording to the class (50 minutes)



### Exercise 4.2.1

Answer the following questions in your exercise book.

- Why do we need to edit audio files?
- Name two Free and Open Source(FOSS) Audio Editing software.
- Name commercially available audio editing software.

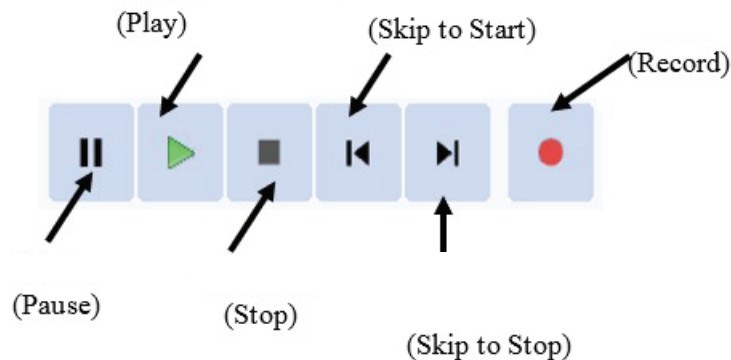
### For Your Knowledge

#### Audio recording using Audacity

- Open Audacity software
- Take New Layers ( File → New )
- File → Save Project → Save Project



To record sound using Audacity software, Transport Toolbar is used. It allows you to record, playback, control and move to the beginning or end of the track. By saving through File → Save Project, a file will be created in audacity project format which can be opened only by Audacity software. The files saved in the (.aup) extension can be used for further editing.



- **Record**

Used to start the audio recording

- **Stop**

Used to stop the recording or playing of an audio clip

- **Pause**

Used to temporarily stop the recording or playing of an audio clip by clicking on pause for the second time recording or playing of the clip will resume.

- **Play**

Used to start playing the clip

- **Skip to Start**

Moves to the beginning of the audio clip

- **Skip to Stop**

Moves to the end of the audio clip





### Activity 4.3

Imagine that you have been asked to play only in the main language, as it takes longer to play an audio clip in several languages to switch periods. Remove a portion of an audio clip and create a quality audio file using audio editing software

- Open the audio file created in Activity 4.2 using the Audacity software.
- Run it and listen carefully.
- Instead of a bilingual announcement, keep only the announcement in your school's main medium of instruction and remove the audio segment in the other language.
- Play your new audio track again after editing and listen carefully.
- Select a location to store the edited audio track, give it a suitable name, and store it on your computer.

(50 minutes)

#### For your knowledge

**Let's make work easier by using shortcut keys.**

Spacebar key of the keyboard can be used as a shortcut key to play or stop the audio track.



- To play from any place of the audio clip use the selection tool and click on the place you want to start and click on the play button.
- To move the cursor from left to right or right to left in the audio clip use left or right arrow keys of the keyboard.
- To select a section of the audio track,

#### **Using mouse**

- Click on the point of start to select
- Press on the hand sign that appears and pull to the end of the selection and release the mouse

#### **Using Keyboard**

Use the shift key with right or left arrow keys to select the required portion of the soundtrack

#### **When listening, you can use the following keys to skip parts of the audio track**

- To get the cursor one second backward you can use left arrow key or comma ( , ) key
- To get the cursor one second forward you can use right arrow key or apostrophe ( ' ) key.
- To get the cursor five second backward you can use left arrow key with shift key or comma key( , ) with shift key
- To get the cursor five second forward you can use right arrow key with shift key or apostrophe key( ' ) with shift key
- You can use the following path to open a saved Audacity file,  
File → Open(Ctrl+O)



## Removing a part of the audio track.

- First, select the Selection tool



- Click at the beginning of the part to be removed.
- Keep pressing “Zoom in” until the information becomes visible.
- While holding the shift key, click on the endpoint of the section you want to remove.
- Click “cut” tool in edit tool bar or use delete key on the keyboard.



### Activity 4.4

- Form groups according to the teacher’s instructions.
- Organize and sing the song in groups using the lyrics given to your group by your teacher.
- Record it with audio editing software.
- In cases where the same part of the song is repeated, sing and record it only once.
- Play it and listen carefully.
- Identify where the same part of the song should be repeated. (Identify the relevant point of the waveform.)
- Copy the repetitive part of the song and place it in the appropriate places on the waveform.
- Save the newly created audio track.
- Export the new audio track.
- Present the audio file created by your group to the class.

(50 minutes)





### For your knowledge

Positioning the required parts of an audio file using copy and paste

- You can select and copy the desired part of the song using the edit toolbar or shortcut keys. ( Copy / Ctrl+C )
- Click on the location in the waveform where you want to copy the relevant part of the song.
- You can paste the desired part of the audio clip using the edit toolbar or shortcut keys. ( Paste / Ctrl+V)
- If part of the audio is not in the right position, select it and move it to the desired location. (Cut - Paste)
- The shortcut key ctrl+x can be used to cut the audio clip.

### Do You Know?

A file extension, or filename extension, is used to help identify file types on operating systems such as Microsoft Windows. Often this is followed by a dot (.) and two or three letters.



### Activity 4.5

- Import audio files of various file formats provided by the teacher into the audio editing software.
- List the file formats that can and cannot be imported into the audio editing software.

(50 minutes)





## Activity 4.5.1

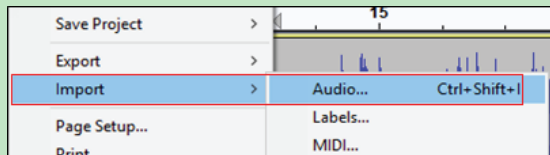
From the file formats listed below, select two audio file formats and write them in your exercise book.

.pdf	doc	.mp3	.wmv
.pptx	.midi	.wave	.xlsx

### For your knowledge

#### Importing an Audio clip

- File → Import → Audio → Select relevant audio file → Click open



- Open Audacity software drag and drop the audio file into that window
- Drag and Drop the Audio file onto Audacity icon





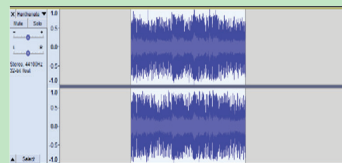
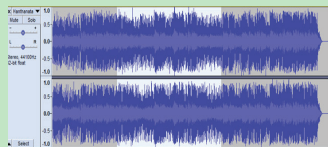
## Activity 4.6

- Import the audio file provided to you into the audio editing software.
- Observe the waveform carefully.
- Listen to imported audio
- Select a part of your audio track that is approximately 10 seconds long.(Trim)
- Test your new audio track.
- Save the new audio track.
- Export the new audio track.
- Listen to the exported audio file.

(50 minutes)

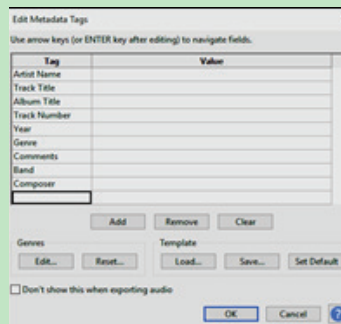
### For your knowledge

- WAV, MP2, MP3, FLAC are several types of audio file formats. Audio files in these formats can be played using an audio playback software.
- You can export an audio file and listen to it using audio playback software.
  1. Select the desired section from the audio track.
  2. Then Edit → Remove Special → Trim Audio



## Export audio files.

- File → Export → Export Audio
- Select the location where the file will be stored and give it an appropriate name.
- Select the desired file format using ‘Save as type’ option.
- Click the save button.
- Then using the Edit Metadata Tags dialog box, enter the details of the audio track and click ok.



**For additional practical training**

### **Gradually reducing the volume of the final section of an audio file (Fade out)**

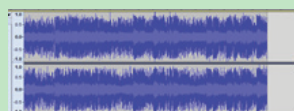
- Open the audio file you created with the audio editing software.
- Run it and listen carefully.
- Observe the waveform at the end of the audio track.
- Gradually lower the volume at the end of the audio track. (Fade out)
- Observe the changes in the wave.
- Play the audio track again and listen carefully.
- Save the new audio track.
- Export the new audio track.



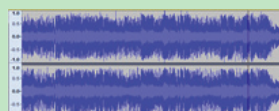
## For your knowledge

### Gradually reducing the volume of the final section of an audio – (Fade out)

- Move to the end of the audio track using the Skip to End tool.
- Zoom in until you see the last two or three seconds of the waveform.
- Click on the waveform about one or two seconds before the end of the track.
- Then Select → Region → Select from the point you clicked in step(3) to the end of the track.
- Then Effect → Fade Out



Before Fade Out



After Fade Out

## Pre-preparation

Clearly write down on a paper what you want to record (such as a song, a stanza) related to the topic you choose for the activity below.





### Activity 4.7

Under the supervision of the class teacher, prepare an appropriate audio file to support the school's administrative activities.

- Create a unique audio clip for the school that can be played at the start of each school period.
- Create an educational audio clip that can be played during school interval or before school starts.
- Create an audio clip to assist in performing morning and evening religious services/ sessions.

(50 minutes)



## For your knowledge

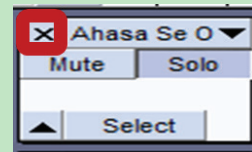
### Create a new audio file by combining several audio Segments.

- You can import multiple audio files into the audio editing software at once.
  - File → Import → Audio → select the required files at once → click on the open button.
  - Click on required files holding the Ctrl key
  - Click on required files holding the shift key.

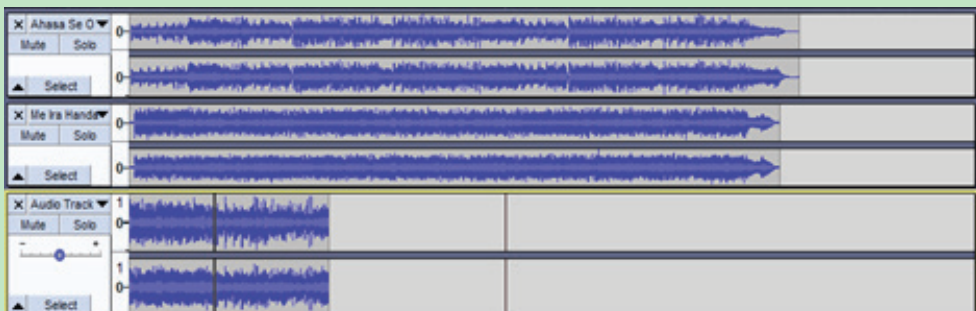
### To add a new track,

Track → Add New → Stereo Track.

- You can adjust the visible area of the audio tracks within one window as needed.

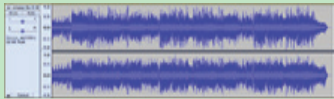


- The track control panel allows you to temporarily mute any unwanted audio tracks.
- The 'Close' option in the track control panel can be used to delete unwanted tracks.

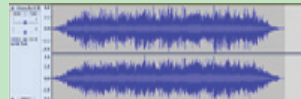


## Adding effects to audio files.

- Open the audio recording you created during the previous activities using the audio editing software, play it and listen carefully.
- Now add following effects in suitable locations in the audio track.
  - o Fade In (begining of the audio clip)
  - o Fade Out (end of the audio clip)
  - o Speed (selected point in the middle of the sound track)
  - o Echo (selected point in the middle of the sound track)
- Listen to the changes carefully and practice by adding some more effects.
- You can save the edited clip.
- You can export the new audio track.



Before adding effect



After adding effect



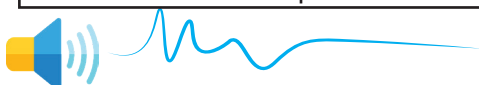


Self - Assessment		
Assessment Criteria: Connecting audio devices correctly.		
Mark "✓" symbol in the box in front of the tasks you can perform.		
Subject Content	Tasks	"✓" Symbol
	1. I can identify unwanted sounds in an audio clip.	
	2. I can store a recorded audio file and replay it.	
	3. I can open an audio clip by selecting an audio editing software.	
	4. I can split an audio clip into segments by using audio editing software.	
	5. I can import an audio file into audio editing software.	
	6. I can store an edited audio clip.	
	7. I can observe the waveform of an audio clip and identify variations in volume.	
Number of "✓" symbols		
Your marks		..... /5

If total number of "✓" symbols is 5	Excellent
If total number of "✓" symbols is 4	Good
If total number of "✓" symbols is 3	Close to the expected goal
If total number of "✓" symbols is 2	Need improvement



<b>Basic Concepts Related to Computer Technology</b>	
Software	Software refers to a set of instructions, programs, or data used to operate computers and perform specific tasks.
Audio	Audio generally refers to sound, particularly as it is transmitted, recorded, or reproduced.
Record	To capture and store sound using a microphone and recording equipment (analog or digital), so it can be listened to or reproduced later.
Audio Editing Software	Audio editing software is computer software designed to manipulate and modify digital audio files.
Audio File Formats	Audio file formats are ways of storing digital audio data. ex - MP3, WAV, AAC, FLAC, AIFF,...etc
User Interface	A User Interface (UI) is the point of interaction between a user and a computer system, software, or application.
Import File	To import a file means to bring data or content from one file into another program, system, or document so that it can be used or processed.
Export File	To export a file means to save or convert data from a program into a specific file format so it can be used in another program, shared, or stored.



Free and Open Source Software	Free and Open Source Software (FOSS) is software that anyone can use, change and share because its source code is open and freely available.
Shortcut Key	Shortcut keys are combinations of keys on a computer keyboard that perform specific actions or commands, often faster than using a mouse or navigating through menus.







