

STUDENT'S WORKSHEET

**FOUNDATION PROGRAMME FOR LITERACY
NUMERACY AND SKILLS**

VOCAL MUSIC

GRADE 9

TITLE OF CARD : DIGITAL TECHNOLOGY

STUDENT'S CARD 9

**MOE
MAHATMA GANDHI INSTITUTE
2025**

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GRADE 9

STUDENT'S WORKSHEET

CARD 9

Title of Card: Digital Technology



Introduction - Use digital tools for practice and self- recording

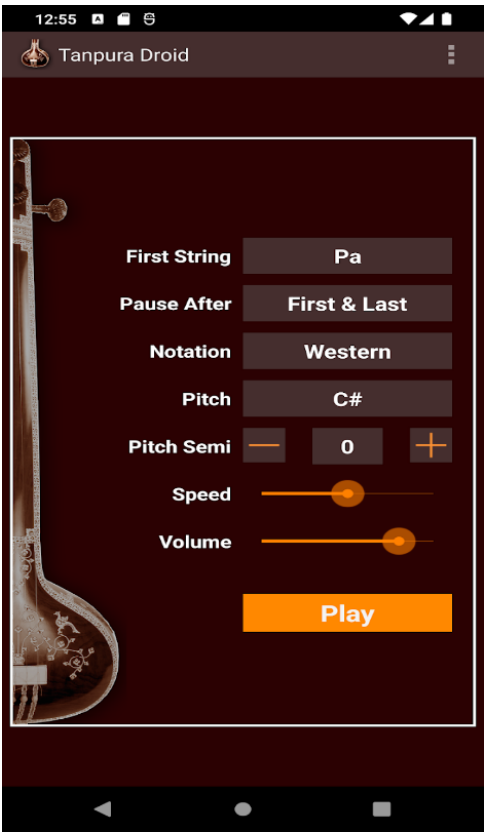
A digital tool in music is any hardware or software used to create, produce, record, perform, or learn music, transforming sound into digital data. These technologies, including Digital Audio Workstations (DAWs) (e.g., Ableton Live), virtual instruments, and mobile apps, allow for precise editing, mixing, and composing, often enabling independent “bedroom producers” to create professional-grade audio.

Key examples and types of digital music tools include:

- **DAWs (Digital Audio Workstations):** Software for recording, editing, and mixing, such as Ableton Live, Logic Pro, or Pro Tools.
- **Virtual Instruments and Plugins (VSTs):** Software that replicates physical instruments or creates new sounds, such as synthesizers and samplers.
- **MIDI (Musical Instrument Digital Interface):** A protocol connecting instruments and computers to control sound.
- **Mobile Apps and Educational Tools:** Software for learning, notation, or composition, such as forScore or MuseScore.

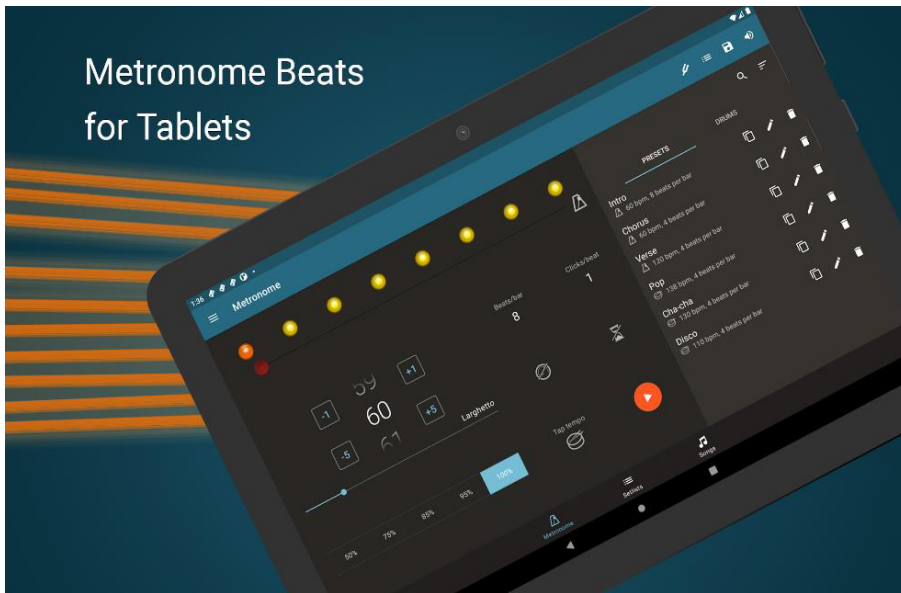
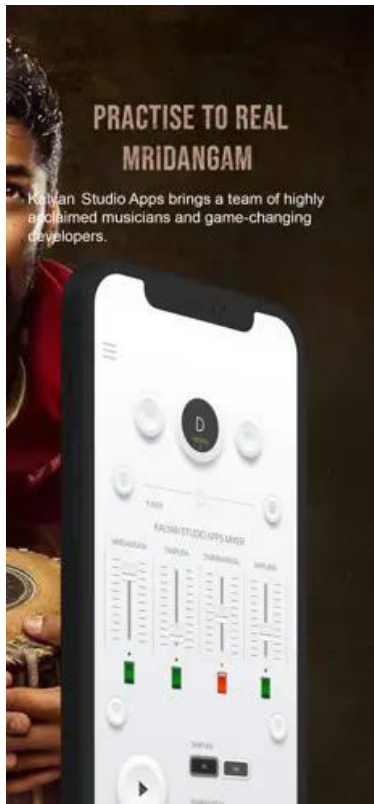
Digital tools for Indian music—spanning Hindustani and Carnatic traditions—have transformed practice and recording by enabling precise tuning, rhythm tracking, and self-analysis. Key tools include electronic/app-based Tanpuras for drone, Tabla/Mridangam apps for rhythm, and DAWs (Digital Audio Workstations) for self-recording and analysis. These technologies allow for digital notation, visualization of raga patterns, and remote learning, supplementing traditional methods.

Drone and Pitch Reference: Digital Tanpuras (e.g., SwarSandesh, iTanpura) provide essential, customizable drones for pitch accuracy.

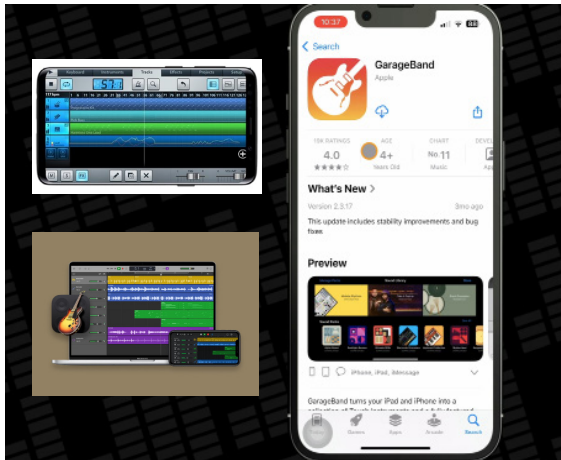


Rhythm Accompaniment: Apps like SwarShala or Tabla Studio provide authentic Tabla and Mridangam accompaniment, allowing tempo adjustments for practice.





Self-Recording & Analysis: Using DAWs (e.g., Audacity, GarageBand, Pro Tools) allows musicians to record, mix, and listen back to their performances to correct pitch and rhythmic errors.



Performance Visualization: Software is used to visualize raga structures, fingering, and microtonal variations, aiding in technical improvement.



Learning Platforms: Online platforms offer access to tutorials, notation software, and archival recordings for study.

Swara shala



Impact on Practice and Performance

- **Improved Accuracy:** Digital tools help in fine-tuning and maintaining steady tempo (tala).
- **Accessibility:** Technology has made Indian classical music more accessible globally, offering resources to students outside the traditional guru-shishya model.
- **Digital Preservation:** Audio/video recordings are used to archive performances and study techniques of maestros.



- **Creative Innovation:** Artists are using technology to blend traditional Indian music with other genres, enhancing production capabilities.
- **Sensor Technology:** Specialized sensors on traditional instruments (Sitar, Tabla) are being used to convert acoustic performances into digital signals, enabling real-time analysis and synthesis.



ACTIVITY 1

RECORD AND IMPROVE

Student to practice a short vocal exercise or song and record it using their phone..

Purpose:

- To help students use digital tools to record their singing and improve through self – listening.

Learning outcomes

Students will be able to:

- Record their singing using a mobile device
- Listen critically to their own voice
- Identify strength and areas of improvement

Resource Materials

- Smartphones or tablets
- Earphones
- Recording apps such as BandLab or Smule
- Notebook/ Worksheet

Procedure

- Teacher demonstrates how to record a short vocal phrase.
- Students practice a short song or vocal exercise
- Students record their singing using the recording app.
- They listen to their recording using earphones
- Students play their recording and teacher gives feedback. On pitch accuracy, rhythm and expression.
- Students record a second improved version after feedback
- Students compare both versions and discuss
- Which version is better
- What improved



STUDENT SELF – ASSESSMENT

Student Worksheet

Name :

Date:

1. What is a digital tool in music?

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.....
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.....

2. List two tools or apps that can help a musician to practice.

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.....
.....

3. Why is self - recording important for singers?

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.....
.....

4. What app or tool did you use for the activity record and improve?

.....
.....

5. How many times did you practice before recording?

.....



STUDENT SELF – ASSESSMENT

Student Self – Reflection Sheet

Name :

Date:

1. Listen to your recording and tick as appropriate.

Musical Element	Good	Needs Improvement
Pitch (singing in tune)		
Rhythm		
Pronunciation		
Expression		

2. What did you like about your recording?

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.....
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3. What you need to improve in your next practice?

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.....
.....

4. How can digital tools help you become a better singer?

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