

STUDENT'S WORKSHEET

**FOUNDATION PROGRAMME FOR LITERACY
NUMERACY AND SKILLS**

VOCAL MUSIC

GRADE 9

TITLE OF CARD : NOTATION SYSTEM

STUDENT'S CARD 7

**MOE
MAHATMA GANDHI INSTITUTE
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GRADE 9

STUDENT'S WORKSHEET

CARD 7

Title of Card: Notation System



Lesson 1 : Notation System


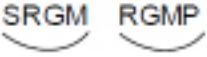




Introduction

Throughout time, the development of notation systems has allowed musical compositions to be expressed in writing according to their grammar. This process has allowed people to store compositions and communicate them so that there was no content loss even after an extended amount of time.

Music notation is used to visually represent aurally perceived instrumental or vocal music through the use of written symbols (codes). We use notation to teach and learn music, and to facilitate reading and memorizing of compositions.

Pt. Vishnu Narayan Bhaskhande developed a widely used notation system for Hindustani Classical Music called the **Bhaskhande Swaralipi**. It simplifies musical representation compared to other systems.

Signs and symbols in Pt V.N Bhaskhande Notation System

1	S R G M P D N	Shudha swaras/ natural / pure notes
2	<u>R</u> <u>G</u> <u>D</u> <u>N</u>	Komal swaras – Flat notes are denoted by an underscore
3	 M	Tivra swara – sharp note is denoted by a vertical bar above the note
4	N •	Mandra Saptak – Lower Octave/ scale Represented by a dot under a note.
5	• S	Taar saptak - High Octave/ scale Represented by a dot above a note.
6	<u>N</u> •	Komal swara mandra saptak – Represent flat note , lower octave
7	• M	Tivra swara taar saptak – Represent sharp note high octave
8		Chhand - The chhand symbol under a group of notes indicates they must be sung in a single beat. These symbols are used in taans. Eg SRGM RGMP  
9		Meend - Meend is a smooth glide from one swar to another. Eg.  , 

10	G M	Kan - A kan is when you add a touch of another note before singing or playing the main note. It is denoted by a superscript. Eg Ma is sung starting with a touch of Ga.
11	X, 2, 3, 4. 0	Taal Signs – X represent Sam 1 st accented beat ; 2 , represent Dusri 2 nd accented beat ; 3 , represent Teesri 3 rd accented beat.; 4 represent Chawthi 4 th accented beat, all demonstrated by Tali - clapping 0 represent Khali unaccented or empty beat demonstrated by a wave
12	-	Dash – Represent prolongation of note by one beat. Eg S - . R - - -
13	S	Avgraha – Represents prolongation of word or syllables in a song/bandish. Eg Pe tit pa pa Noe S S SL

Example1: Taal signs

Taal Ek Taal 12 beats

1	2	3	4	5	6	7	8	9	10	11	12
Dhin	Dhin	DhaGe	Tirakita	Tin	Na	Ka	Ta	DhaGe	Tirakita	Dhin	Na
X		0		2		0		3		4	

Example 2: Musical Composition

1	2	3	4	5	6	7	8
G	G	G	-	G	G	G	-
Jin	gle	beS	Slls	Jin	gle	beS	Slls
G	P	S	-R	G	-	-	-
Jin	gle	all	Sthe	Way	S	S	S
M	M	M	-	MM	G	G	GG
Oh	what	fun	S	it is	to	ride	in a
G	R	R	G	R	P	S	-
One	horse	O	pen	sleigh	S	Hey	S
X				0			



ACTIVITY 1

Write what you hear

Purpose:

- To develop aural skills by training students to listen carefully to pitch and melodic movement
- To strengthen understanding of Indian notation through listening.
- To bridge oral-tradition and written musical representation.
- To enhance students' musical memory concentration and accuracy.

Learning outcomes

After completing this activity, students will be able to:

- Identify and recognize swaras (S R G M P D N) by listening.
- Accurately write the melodic phrase after listening
- Demonstrate improved listening discrimination (high pitch, low pitch, repetition, stepwise movement)
- Show confidence in connecting singing. Listening and writing..
- Collaborate and self – connect through peer discussion and singing.

Resource Materials

Human/ Natural

- Teacher's voice (singing the phrases)
- Students' voices (for echo singing and checking)
- Students' listening ability and memory

Material resources

- Whiteboard / marker
- Notebook, pencil
- Copy of song and song notation
- Harmonium/ keyboard / tanpura

Procedure

Step 1: Warm - up

- Teacher begins with a Sa – Pa – Sa sargam scale singing
- Teacher sings students echo
- Revise swara names

Step 2: Listening

- Teacher sings a short song of their choice. For Example: Twinkle Twinkle little star Or Happy birthday to you
- Teacher sings the phrase 2 – 3 times slowly and clearly
- Students listen without writing.

Step 3: Writing phase

- Teacher may write only the starting note and syllable of the song or write only the lyrics of the song and students to write the melody.
- Teacher sings the song again and students write the phrase.
- Teacher encourages silent thinking and internal hearing
- Teacher may repeat the song or play the melody on harmonium if necessary.

Step 4: Singing & Checking

- Students sing what they wrote
- Teacher sings// play the original phrase again
- Students self – correct using listening comparison.

Step 5: Review

- Students exchange notebook, and sing each other's notation
- Discuss differences politely and musically.
- After listening to each group, teacher sings the original melody of the song, and students correct where necessary.

Extension of Activity

Teacher may do the same exercise now with the national anthem.

All Students know the national anthem teacher gives the the starting sargam.

Assessment:

Summative – Notation theory, listening, identification.



STUDENT SELF – ASSESSMENT

Student Worksheet

Name :

Date:

1. Complete the notation of the following taal.

(a) Taal Dadra _____ Matras/Beats

1	2	3	4	5	6
Dha	—	—	—	Tin	Na
—			0		

(b) _____ Taal 16 matras/beats

Dha — Dhin —	— Dhin Dhin —	Dha Tin — —	— Dhin — —
X	—	—	3

2. Match the signs and symbols of column A with column B.

	Columnn A	Column B
1	S R G M P	Khali , Unaccented/ empty beat
2	N •	Dash – prolongation of note by one or more beats.
3	• M	Meend – sing with a glide
4	X, 2,3	Shudh swaras/ natural notes
5	<u>R</u> <u>G</u>	Mandra saptak /Lower octave
6	⤿	Tivra swara and taar saptak / sharp note higher octave
7	–	Komal swara / flat note
8	0	Accented beats



STUDENT SELF – ASSESSMENT

Student Worksheet

Name :

Date:

1. Listening & Notation checklist

	Tick the answer that apply to you - Skill	
1	I listened carefully to the melody before writing.	
2	I recognized the swaras (S R G M P D N).	
3	I wrote the notes in the correct order.	
4	I checked my work by singing the notation.	
5	I corrected my mistakes after listening again.	
6	I stayed focused during the activity.	

2. Think & Reflect.

a) What did I learn from this activity?

b) Which part was easiest for me?

c) Which part was challenging for me?

d) How did singing help me improve my notation?

3. My skills today were:

	Options	Tick one option
1	Excellent	
2	Good	
3	Developing	
4	Need Practice	

4. Next time I will try to:

	Options	Tick one or more option
1	Listen more carefully before writing	
2	Practice singing swaras at home	
3	Focus on higher and lower notes	
4	Be more confident and less afraid of mistakes	

5. My overall self - rating

	Options	Tick one option
1	Excellent	
2	Good	
3	Developing	
4	Beginning	

6. How did I feel about this activity?

	Options	Tick one option
1	I enjoyed it	
2	It was ok	
3	I found it difficult	

Lesson 2 : Shruti and Swara

Introduction

SWARA

Indian classical music uses a scale built from 7 notes. These notes and their abbreviated names, commonly used in sargam are:

1. Shadja / Sa The mother of all notes
2. Rishabh / Re
3. Gandhar / Ga
4. Madhyam / Ma
5. Pancham / Pa
6. Dhaivat / Dha
7. Nishad / Ni

A scale of 12 notes

In both Hindustani and Carnatic classical music, the two shrutis Sa and Pa are achala (*immovable*), they will always stay shuddha (natural)
The other 5 notes are chala (*movable*) : Re, Ga, Ma, Dha, Ni.

Re, Ga, Dha, Ni can be either, from low pitch to high pitch:

- **komal:** flat
- **shuddha:** natural
- These 4 notes are written in lowercase when they are **komal**, and in Bhatkhande notation with a line under the notes:

R G D N

For Ma, it can be either, from low pitch to high pitch:

- **Shuddha:** natural
- **Teevra:** sharp
- **Ma** when it is **teevra**, and in Bhatkhande notation is written with a vertical line above it:
 - $\overset{|}{M}$
 - So, the total of notes is now $7 + 4 + 1 = 12$.
 - Here is the full scale, from low to high Sa:

▪ S R R G G M $\overset{|}{M}$ P D D N N

SHRUTI

The word shruti is derived from the root 'shru' which means to hear. Therefore, shruti can be defined as an audible sound; a sound which can be heard. Shruti is also known as microtones.

Ancient musicologists describe shruti as "**shruyate iti shruti**" which means that when sound is clearly heard, it can be identified as a shruti. The possibility of resting or pausing on a sound allows the human ear to recognise it as a specific swar. Hence, shruti and swara-s are closely connected.

There are 22 shruti-s in a musical scale. These 22 shruti-s are distinct and different from each other. It is relatively easier for the common human ear to differentiate between shudh swar-s as opposed to vikrit swar-s.

For Hindustani Classical music or Carnatic Music, 22 shrutis are nearly the same. Although, they do not have the same names, and they are not all used in both systems.

The names of the 22 shrutis in hindustani music:

- **S:** *Shadja* - Tivraa
- **r1:** *Ati komal Re* - Kumadati
- **r2:** *Komal Re* - Mandaa
- **R1:** *Shuddha Re* - Cchandovati
- **R2:** *Teevra Shuddh Re* - Dayaavati
- **g1:** *Ati komal Ga* - Ranjani
- **g2:** *Komal Ga* - Raktika
- **G1:** *Shuddha Ga* - Rawdri
- **G2:** *Teevra Shuddh Ga* - Krodhaa
- **M1:** *Shuddha Ma* - Vaarjika
- **M2:** *Ek Shruti Ma* - Prasaarinee
- **m1:** *Teevra Ma* - Preeti
- **m2:** *Teevratama Ma* - Maarjanee
- **P:** *Pancham* - Kshiti
- **d1:** *Ati komal Dha* - Raktaa
- **d2:** *Komal Dha* - Sandeepani
- **D1:** *Shuddha Dha* - AAlaapinee
- **D2:** *Teevra Shuddh Dha* - Mandatee
- **n1:** *Ati komal Ni* - Rohinee
- **n2:** *Komal Ni* - Ramyaa
- **N1:** *Shuddha Ni* - Ougraa
- **N2:** *Teevra Shuddh Ni* - Kshovini

Sargam of shrutis for Carnatic music:

- **Sa**
- **r1:** *Ek shruti Re*
- **r2:** *Dvi shruti Re*
- **R1:** *Tri shruti Re*
- **R2:** *Chatu shruti Re*
- **g1:** *Shuddha Ga*
- **g2:** *Sadhanran Ga*
- **G1:** *Antara Ga*
- **G2:** *Chyut madhyam Ga*
- **M1:** *Shuddha Ma*
- **M2:** *Teevra Shuddha Ma*
- **m1:** *Prati Ma*
- **m2:** *Chyut Pancham Ma*
- **Pa**
- **d1:** *Ek shruti Dha*
- **d2:** *Dvi shruti Dha*
- **D1:** *Tri shruti Dha*
- **D2:** *Chatu shruti Dha*
- **n1:** *Shuddha Ni*
- **n2:** *Kaishiki Ni*
- **N1:** *Kakali Ni*
- **N2:** *Chyut Shadja Ni*

Guided Alankaar Practice

- Call and Response - Teacher sings alankaar and students repeat
- Group/ pair singing - Students sings/repeats in group/ pairs.

1. Aroha: S R G M P D N Ś
Avroha: Ś N D P M G R S
2. Aroha: SS RR G G MM PP DD N N Ś Ś
Avroha: Ś Ś N N DD PP MM G G RR SS
3. Aroha: SRG RGM GMP MPD PDN DNŚ
Avroha: ŚND NDP DPM PMG MGR GRS
4. Aroha: SRGM RGMP GMPD MPDN PDNŚ
Avroha: ŚNDP NDPM DPMG PMGR MGRS
5. Aroha: SR RG GM MP PD DN NŚ
Avroha: ŚN ND DP PM MG GR RS

Assessment: Formative (Class Participation, Oral questioning, worksheet)

Summative: Listening identification



ACTIVITY 1

Hear the Difference - Shruti Listening Game

Type - Aural discrimination

Purpose:

- Develop students' listening sensitivity and pitch awareness.
- To enable students to recognize small differences in sound (shruti).
- To encourage focus, confidence and participation in a fun and engaging way.

Learning outcomes

By the end of this activity students will be to:

- Distinguish between same and slightly different pitches.
- Demonstrate improved aural discrimination skills
- Respond accurately to heard sounds using vocal or physical cues.
- Understand that shruti is the smallest pitch difference in Indian/Carnatic music.
- Participate confidently in group listening activities.

Materials/Resources Needed:

- Teacher' voice (Primary resource)
- Shruti box/ electronic tanpura
- Keyboard or harmonium
- Quiet environment/ open space for clear hearing
- Students' response

Procedure

Step 1 : Preparation

- Set The Sa Drone using shruti box or tanpura.
- Ask students to sit or stand comfortably.
- Establish listening rules: silent listening quick response.

Step 2: Demonstration

- Sing Sa Middle octave Clearly and confidently
- Ask students to respond by saying **SAME**.
- Now sing Sa Again, with a slight pitch change
- Now sing Re then with a slight pitch change
- Ask students to respond **DIFFERENT**
Briefly explain that this small change is called a shruti difference.

Step 3: Guided Practice

- Sing a sequence of sounds
 - Same pitch – Same pitch
 - Same pitch – Slightly changed pitch
- After each sound students respond
 - **SAME** or
 - **DIFFERENT**

Encourage quick but thoughtful responses.

Step 4: Increasing Difficulty

- Introduce **SA** to **RE** with very small pitch movement
- Then **SA** to **GA**
- Occasionally repeat the same pitch to test focus
- Change tempo and order to keep student alert

Step 5: Student Involvement

- Invite students to sing a pitch
- Class listens and responds.
- Teacher guides and corrects gently if needed.

Step 6: Consolidation

- Ask reflective questions
 - Was it or difficult to hear the difference?
 - Why do singers need good listening skills?

Extension of Activity:

Type: Appreciation & Creativity – emotional understanding of music

- Play Short Raag, ask students how does it feel?
- Calm/ Sad/ Bright?
- Explain that shruti usage creates emotion



STUDENT SELF – ASSESSMENT

Student Self Reflection Sheet

Name :

Date:

1. Match Column A with Column B.

Column A	Column B
Shruti	Basic musical note
Mandatee	Vocal accuracy
Swara	Fixed note
Sa	Small pitch difference
Listening	Name of a shruti

2. Circle the correct answer.

i) How many Shrutis are there in Indian music?

- a) 12 b) 22 c) 7

ii) Which skill is most important to understand shruti?

- a) Writing b) Listening c) Clapping

iii) Shruti is related to :

- a) Rhythm b) Tempo c) Pitch

iv) How many komal swaras are there?

- a) 2 b) 4 c) 7

v). Which one is an example of a shruti?

- a) Ramyaa b) Tivra c) Shadaj

3. Fill in the blanks with the correct answer.

- a) The smallest audible pitch is called S _____.
- b) There are _____ shrutis.
- c) The seven basic swaras are SA RE GA MA _____.
- d) _____ swaras are flat notes.
- e) _____ swara is written with a vertical bar on top.



ACTIVITY 1

Hear the Difference - Shruti Listening Game

Listen carefully to each sound sung or played by your teacher.

Sound No	Same Pitch	Different Pitch
1		
2		
3		
4		
5		



STUDENT SELF – ASSESSMENT

Student Self Reflection Sheet

Name :

Date:

Hear the difference - Shruti listening Game.

Circle the statements that apply to you.

- a) I listened carefully during the activity.
- b) I could hear small pitch difference.
- c) I found the activity easy.
- d) I found the activity challenging.
- e) I participated confidently.

Reflection Questions

i. One thing I learnt about Shruti today.

ii. What was difficult for me during this activity?

iii. How will this activity help me to improve my singing?

My listening skills today (Circle one)

a) Excellent

b) Good

c) Satisfactory

d) Needs Practice



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