



Chopda Education Society's

**College of Education Chopda, Dist. Jalgaon**

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(NAAC Accredited Grade-C)

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Outward No.-

Date:

## **Matrix 2.4.5**

- **Documentary evidence in support of each response selected**
- **Sample evidence showing the tasks carried out for each of the selected response**



चोपडा एज्युकेशन सोसायटी संचलित-

# शिक्षणशास्त्र महाविद्यालय, चोपडा जि. जळगांव

छात्राध्यापकाचे नाव :- Rupali Vinod Paliwal \* सराव पाठ टुचण \* रोल नं. 24  
सहकारी शाळेचे नाव :- P.V.M School इयत्ता :- 8 तुकडी  
पाठ क्रमांक :- 4 दिनांक :- तासिका :- वेळ :-  
विषय :- Science  
घटक :- Material & matter  
उपघटक / पाठघांश :- Three states of matter  
मार्गदर्शक अध्यापकाचार्य :- Prof. M.P. Patil sir.  
अपेक्षित पूर्वज्ञान :- Kids have basic knowledge of material and types of materials.

पाठाचा हेतू :- To make student understand the composition of all three states of matter.

अध्यापनाचे मुद्दे :- Three states of matters solid, liquid, gases its composition with examples.

अध्यापन पध्दती :- Demonstration, explanation.

अध्यापन सूत्र :- Simple to complex

अध्ययन- अध्यापनातून साध्य होणारी मूल्ये / गाभाघटक :-

Scientific language.  
Scientific outlook.

आशयातील नवे शब्द / संबोध :-

शैक्षणिक साहित्य :- Black Board, Stone, water, Balloon. etc.

आशय विश्लेषण (पाठ्यवस्तु)	उद्देश व स्पष्टीकरण	आधार प्रणाली / शै. साधने
<p><u>Introduction</u> - Hello friends today we will learn about different forms of matter.</p>	<p><u>Knowledge</u> Student will understand the three states of matter</p>	<p>Black Board, flash cards, charts, 3D models</p>
<p><u>Statement of Aim</u> - To study different states of matter solid, liquid, Gas.</p>		
<p><u>विषय विवेचन</u> - Plants, animals, humans beings and the things that we see around are made up of matter</p>	<p><u>आकलन</u> - Student can answer the all the questions related to three states composition of matters</p>	
<p><u>Solids</u> - Solids are hard and cannot be easily compressed. They have definite shape &amp; volume. They do not change their shape even if moved from one place to another. eg. Book, Stone etc.</p>		
<p><u>Liquids</u> - They do not have definite shape but have definite volume, liquid are also called fluids</p>		

Teacher will draw diagram on black board & explain all properties of solids, liquids & gases.

students will listen carefully

orally

Gas



Liquid



Solid



STATES OF MATTER



आशय विश्लेषण (पाठ्यवस्तु)	उद्देशे व स्पष्टीकरणे	आधार प्रणाली / शै. साधने
<p>because they can flow. They take the shape of the container into which they are poured. eg. Milk, oil, water.</p> <p><u>Gases</u> - Gases do not have a definite shape or volume. it can flow in all directions easily &amp; can be compressed. They occupy the entire container in which they are kept. most gases are invisible. Air around us is a mixture of gases. eg. <math>O_2</math>, <math>CO_2</math>,</p>	<p><u>Skills</u> - Students can draw all three states of matter in notebook by them self.</p> <p><u>उपयोजन</u> - Students can answer all question correctly.</p>	<p>Black Board, Flash cards.</p>

Q. What are solids?  
Give examples.

Students  
will  
write its

Written.

Q. What are liquids?  
Give ~~exp~~ examples.

answers  
in their  
Notebook.

Q. What are gases?  
Give examples.

Q. What is the  
difference bet<sup>n</sup>  
the molecular  
models of solids  
& liquid.

संकेत -

Explain three  
States of matter  
with examples.

Students  
will  
give  
answers

orally.

सामग्री -

Explain any substance  
which is available in  
all three states of  
matter.

Student  
will  
Solve in  
Note  
book

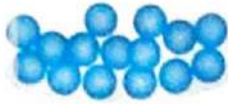
Written.

Subject - science \* फलक लेखन \* Day/Date .

Aim - To study different states of matter  
Solid, liquid, gases.



SOLID



LIQUID



GAS

- Solids have fix shape
- Liquids have no fixed shape
- Gases can occupies all containers.

## \* सराव पाठ निरीक्षण \*

	उत्कृष्ट	चांगला	समाधानकारक	असमाधानकारक
१) पाठ टाचण व तयारी				
अ) परिपूर्णता व अचुकता	/			
ब) निटनेटकेपणा व स्वच्छता	/			
क) नकाशे, आकृत्या व चित्रे	/			
२) प्रस्तावना व हेतूकथन				
अ) पूर्वज्ञान व पडताळणी				
ब) नाविन्यता-आकर्षकता	/			
कुतूहल जागृतता	/			
क) हेतूकथन स्पष्टता				
३) विषय प्रतिपादन				
अ) प्रश्न सादरीकरण		/		
ब) स्पष्टीकरण/कथन	/			
क) शैक्षणिक साधनांचा वापर	/			
ड) वर्ग वातावरण	/			
इ) फलक लेखन	/			
ई) समारोप	/			
४) मूल्यमापन व स्वाध्याय				
अ) उद्दिष्टानुसार	/	/		
ब) आशयानुसार	/			
५) अन्य मुद्दे				
अ) वेशभूषा	/			
ब) स्वच्छता, टापटीपपणा	/			
६) आशय प्रभूत्व				
७) एकूण परिणामकारकता	/			

निरीक्षकाचा अभिप्राय :-

V. Good lesson





चोपडा एज्युकेशन सोसायटी संचलित-

# शिक्षणशास्त्र महाविद्यालय, चोपडा जि. जळगांव

छात्राध्यापकाचे नाव :- Rupali Vinod Taliwal \* सराव पाठ सृजन \* रोल नं. 24  
सहकारी शाळेचे नाव :- P.V.M School इयत्ता :- 8<sup>th</sup> तुकडी  
पाठ क्रमांक :- दिनांक :- तासिका :- वेळ :-  
विषय :- Metal (Subject) Science  
घटक :- Metals & their properties.  
उपघटक / पाठघांश :- Metals & Non-metals.  
मार्गदर्शक अध्यापकाचार्य :- Prof. M.P. Patil Sir.  
अपेक्षित पूर्वज्ञान :- kids have basic knowledge of all types of composition of materials like wood cotton, metals, non-metals plastic etc.  
पाठाचा हेतू :- To make student understand various properties of metals.  
अध्यापनाचे मुद्दे :- Defination, properties & identification of metals.  
अध्यापन पध्दती :- Explanation, Discription. Demonstration  
अध्यापन सूत्र :- Simple to complex  
Concret to abstract  
अध्ययन- अध्यापनातून साध्य होणारी मूल्ये / गाभाघटक :- Scientific attitude  
आशयातील नवे शब्द / संबोध :- conductor.  
malleable,  
ductile.  
शैक्षणिक साहित्य :- Black Board, chalk, duster  
Video etc.



आशय विश्लेषण (पाठ्यवस्तु)

उद्देश व स्पष्टीकरण

आधार प्रणाली /  
शै. साधने

### Introduction -

Hello friends today we will learn about metals, their properties.

### Statement of aim -

To study metals and their properties.

### विषय विवेकन -

Metals - are defined as those elements which have characteristic chemical & physical properties.

Metals are natural compounds of earth's crust in which they are generally found in the form of metal ores.

### Properties -

- ① Metals are malleable & ductile.
- ② Metals are good conductors of heat & electricity.
- ③ Metals are Lustrous (shine)

Knowledge  
student will understand the metals & its properties

Black Board,  
Flash cards,  
Video

### आकलन -

Students can explain different uses of metals

Teacher will explain all the properties of the metals each with example.

Teacher will try to draw diagram of each.

Student will listen carefully

orally.

### Lustrous Items

tearAoo.com



Gold



Silver



Copper

आशय विश्लेषण (पाठ्यवस्तु)	उद्दिष्ट व स्पष्टीकरण	आधार प्रणाली / शै. साधने
<p>and can be polished</p> <p>④ Metals are solids at room temperature (except mercury which is liquid)</p> <p>⑤ Metals are tough &amp; strong.</p> <p><u>Uses -</u></p> <p>① Gold, Platinum &amp; silver used as Jewellery &amp; ornaments</p> <p>② Construction purpose</p> <p>③ Aluminium, steel used as utensils.</p> <p>④ Aluminium are used in insulation wires.</p> <p>⑤ Mercury to measure temperature</p> <p>⑥ For vehicles etc.</p>	<p><u>Skills -</u></p> <p>Students can explain all properties of metals with examples.</p> <p><u>उपयोजन:</u></p> <p>Expt: Student could explain some metals with examples used in day today life.</p>	<p>Black Board.</p> <p>flash card.</p> <p>etc.</p>

अध्ययन - अनुभव		मूल्यापन
अध्यापक कृती	विद्यार्थी कृती	
<p>Q. What are material &amp; define molecule?</p> <p>Q. What are metals?</p> <p>Q. Explain all properties &amp; metals. each with example?</p> <p><u>अंकलन -</u></p> <p>Q. Give <del>ex</del> different uses of metals?</p> <p><u>संविष्टाय -</u></p> <p>To collect diff. Samples of metals &amp; explain it.</p>	<p>Students will write all answers in their Notebook</p> <p>orally</p> <p>Student will collect many samples.</p>	<p>written.</p> <p>active participation &amp; language development.</p>



Subject - science \* फलक लेखन \* Day/Date.

Date:

Aim - To study

metals & their properties and its uses.

Properties -

- 1) Ductile.
  - 2) malleable
  - 3) Good conductor of heat
  - 4) has own luster
- eg. Gold, Aluminium  
steel.



\* सराव पाठ निरीक्षण \*

	उत्कृष्ट	चांगला	समाधानकारक	असमाधानकारक
१) पाठ टाचण व तयारी	/			
अ) परिपूर्णता व अचुकता	/			
ब) निटनेटकेपणा व स्वच्छता	/			
क) नकाशे, आकृत्या व चित्रे	/			
२) प्रस्तावना व हेतूकथन	/			
अ) पूर्वज्ञान व पडताळणी	/			
ब) नाविन्यता-आकर्षकता	/			
कृतूहल जागृतता	/			
क) हेतूकथन स्पष्टता	/			
३) विषय प्रतिपादन	/	/		
अ) प्रश्न सादरीकरण	/	/		
ब) स्पष्टीकरण/कथन	/	/		
क) शैक्षणिक साधनांचा वापर	/	/		
ड) वर्ग वातावरण	/	/		
इ) फलक लेखन	/	/		
ई) समारोप	/	/		
४) मूल्यमापन व स्वाध्याय	/	/		
अ) उद्दिष्टानुसार	/	/		
ब) आशयानुसार	/	/		
५) अन्य मुद्दे	/	/		
अ) वेशभूषा	/	/		
ब) स्वच्छता, टापटीपपणा	/	/		
६) आशय प्रभूत्व	/	/		
७) एकूण परिणामकारकता	/	/		

निरीक्षकाचा अभिप्राय :-

V. B. W. D. V. B. W. D. V. B. W. D.

मार्गदर्शिकाची सही व दिनांक

निरीक्षकाची सही व दिनांक





चोपडा एज्युकेशन सोसायटी संचलित-

# शिक्षणशास्त्र महाविद्यालय, चोपडा जि. जळगांव

\* सराब पाठ टाचण \*

छात्राध्यापकाचे नाव :- Rupali Vinod Pallwal रोल नं. 24

सहकारी शाळेचे नाव :- P.V.M. School इयत्ता :- 8<sup>th</sup> तुकडी

पाठ क्रमांक :- दिनांक :- तासिका :- वेळ :-

विषय :- (Material & matter) Science.

घटक :- Atomic Structure

उपघटक / पाठ्यांश :- Defination of atome, molecule etc

मार्गदर्शक अध्यापकाचार्य :- Prof. M.P. Patil Sir.

अपेक्षित पूर्वज्ञान :- Kids have basic knowledge of material & matter and their composition.

पाठाचा हेतू :- To make student learn atomic structure and composition of matter.

अध्यापनाचे मुद्दे :- Defination of material, matter  
What is an atom? what is atomic structure and formula & atomic configuration

अध्यापन पध्दती :- Demonstration, explanation.  
Lecture.

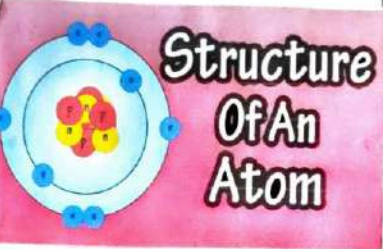
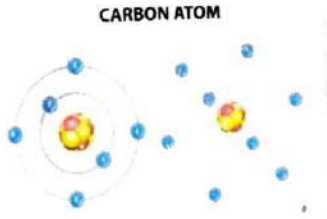
अध्यापन सूत्र :- Simple to complex.

अध्ययन- अध्यापनातून साध्य होणारी मूल्ये / गाभाघटक :- Scientific attitude  
Scientific literacy.

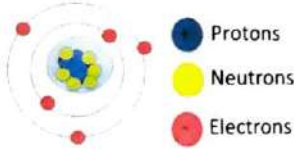
आशयातील नवे शब्द / संबोध :- atomic structure, valancy, configuration.

शैक्षणिक साहित्य :- Black Board, chalk, Duster, flash cards.

आशय विस्तारण (पाठ्यपुस्तक)	उद्देश्य व स्वकीकरण	आधार प्रणाली / री. साधने
<p><u>Introduction</u>- Hello friends we have learned what are molecules &amp; matter in previous class today we will learn about smallest particle of a atom molecule is atom.</p> <p><u>Statement of Aim</u>- To study smallest part of an element called atom &amp; to study its structure.</p> <p><u>विषय विवेचन</u> - we have seen that matter made of molecule. <u>molecule</u> - are formed from atoms. It is an smallest unit of matter. It is the group of 2 or more atoms held together by attractive force known as chemical bond.</p> <p><u>Matter</u> - Any thing that has weight &amp; occupies space.</p> <p><u>Atom</u> - Smallest particle of an element taking part in chemical combination is an atom.</p> <p>Many scientists proposed atomic structure like -</p> <ol style="list-style-type: none"> <li>1) Dalton's Atomic theory.</li> <li>2) Rutherford's nuclear M.</li> </ol>	<p><u>Knowledge</u> Student will understand atomic structure.</p> <p><u>अभिकलन</u> - Student will try to tell atomic definition and its structure &amp; Draw it neatly.</p>	<p>flash cards, 3 D. models, charts.</p>

अध्ययन - अनुभव		मूल्यमापन
अध्यापक कृती	विद्यार्थी कृती	
<p>Teacher will Draw neat &amp; Label Diagram on Black Board &amp; will use chart to make understand electron, proton &amp; neutron in detail &amp; their charges with definition.</p>	<p>student will listen carefully.</p>	<p>orally.</p>
 <p><b>Structure Of An Atom</b></p>		
<p><b>CARBON ATOM</b></p> 		

आशय विश्लेषण (पाठ्यवस्तु)	उद्दिष्टे व स्पष्टीकरणे	आधार प्रणाली / शं. साधने
<p><u>Atomic structure</u> - An atom is form from the nucleus &amp; extranuclear part. It contains 3 parts.</p> <p>① <u>Nucleus</u> - Atomic nucleus is +vely charged. Almost entire mass of the atom is concentrated in nucleus. Proton &amp; neutron are the 2 nucleons.</p> <p>② <u>Proton (P)</u> - it is +vely charged. Proton number is the atomic number of element &amp; is denoted by symbol (Z) (Dalton)</p> <p>③ <u>Neutron (n)</u> - is an electrically neutral subatomic particle.</p> <p>④ <u>Extranuclear part</u> - it involves electrons revolving around nucleus.</p> <p><u>Electron (e)</u> is an -vely charged subatomic particle. Number of electron in extranuclear part is equal to number of proton in the nucleus (Z). electrical charges are balanced &amp; atom is electrically neutral.</p>	<p><u>Skills</u> - Students can draw atomic structure of different elements and understand atomic structure.</p> <p><u>उपयोजन</u> - student will try draw atom of different element understand the charges &amp; structure. eg: H<sub>2</sub>O, O<sub>2</sub></p>	Black Board

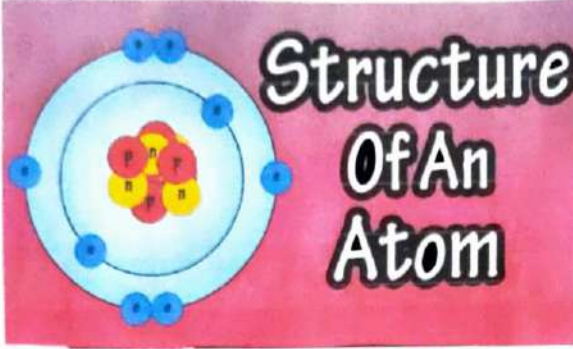
अध्ययन - अनुभव		मूल्यापन
अध्यापक कृती	विद्यार्थी कृती	
<p>Q what is an atom compose of?</p> <p>Q. Defination of atom?</p> <p>Q. what is neutron?</p>	<p>Student will answer the question</p>	orally.
 <p><u>संकेतन</u> - Write a note on composition of an atom and their charges with example.</p> <p><u>स्वास्थ्य</u> - Prepare a 3D model for any one compounds atomic structure</p>	<p>Student will write in their note book.</p> <p>Practical involvement of Students</p>	written  experiencing



Subject - Science \* फलक लेखन \* Day/Date .

Aim - To Study smallest part of an element called atom .

Atom - Composed of proton, neutron and electrons .



\* सराव पाठ निरीक्षण \*

	उत्कृष्ट	चांगला	समाधानकारक	असमाधानकारक
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क) नकाशे, आकृत्या व चित्रे	/			
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अ) पूर्वज्ञान व पडताळणी	/			
ब) नाविन्यता-आकर्षकता		/		
कुतूहल जागृतता				
क) हेतुकथन स्पष्टता	/			
३) विषय प्रतिपादन				
अ) प्रश्न सादरीकरण		/		
ब) स्पष्टीकरण/कथन	/			
क) शैक्षणिक साधनांचा वापर	/			
ड) वर्ग वातावरण	/			
इ) फलक लेखन	/			
ई) समारोप	/			
४) मूल्यमापन व स्वाध्याय				
अ) उद्दिष्टानुसार	/	/		
ब) आशयानुसार	/			
५) अन्य मुद्दे				
अ) वेशभूषा	/			
ब) स्वच्छता, टापटीपपणा	/			
६) आशय प्रभूत्व				
७) एकूण परिणामकारकता	/			

निरीक्षकाचा अभिप्राय :- V. Good lesson

मार्गदर्शिकाची सही व दिनांक

निरीक्षकाची सही व दिनांक