

## Unit Plan that Incorporates the Use of Thinking Tools

### Author

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Roll. No. 44 Div. : B

**School Name** Matoshri College of Education, Eklahare

**School Address** Near Aurangabad Highway, Eklahare Tal. & Dist. Nashik, 422105

**School District** Nashik

**School City, State** Maharashtra

### Classroom Information

#### Subject Area

Science

#### Grade Level(s)

7<sup>th</sup> to 9<sup>th</sup>

### Unit Overview

#### Unit Title

Respiratory System

#### Unit Summary

The respiratory system (or ventilator system) is the biological system that introduces respiratory gases to the interior and performs gas exchange. In humans and other mammals, the lungs, and the respiratory muscles. Molecules of oxygen and carbon dioxide are passively exchanged, by diffusion, between the gaseous external environment and the blood. This exchange process occurs in the alveolar region of the lungs.

### Building the Foundation

#### Bits of Learning Taxonomy

Students learn the detail process of respiratory system.

#### Standards

7<sup>th</sup> to 9<sup>th</sup>

### Learning Objectives

#### Knowledge and Understanding :

1. Student understand the concept of respiratory system and tell the meaning of it in his own words.
2. Student understand and tells the different components found in respiratory system.
3. Student understand and tell the importance and functions of respiratory system.

<b>Curriculum-Framing Questions</b>	<b>Essential Question</b>
	How did our respiratory system work?
	<b>Unit Questions</b>
	1. What is mean by respiratory system? 2. What is the function of pharynx?
	<b>Content Questions</b>
	Which different parts are involve in Respiratory System?

**Student Assessment Plan**

**Assessment Summary**  
Respiratory system (or ventilator system) is the biological system that introduces respiratory gases to the interior and performs gas exchange.

**Assessment Timeline**

Before Project Work Begins	While Students Work on Projects	After Project Work Ends
<ul style="list-style-type: none"> <li>Assessment based on Previous Knowledge</li> <li>Student Knows different body Parts</li> <li>Student knows the function of body parts</li> </ul>	<ul style="list-style-type: none"> <li>Collecting information for the same.</li> <li>Student understands the function of Respiratory system.</li> <li>Student will understand the function of Respiratory system.</li> <li>Discussion Method</li> </ul>	<ul style="list-style-type: none"> <li>Self-learning Material for collecting information</li> <li>Collect pictures of the same.</li> <li>Collect slogans on subject.</li> </ul>

**Visual Ranking Elements (Complete this section if this tool will be used in the unit)**

**Visual Ranking Project Name (For the Visual Ranking workspace)**

Good health Habits to keep the respiratory system healthy.

**Project Description (For the Visual Ranking workspace)**

**Respiratory System:** You may be asking, what is the Respiratory system? Well, the Respiratory system is the system that helps you to breaths in and out, so oxygen (O<sub>2</sub>) can be pumped through your body and carbon dioxide (CO<sub>2</sub>) can be removed from the blood stream. You must remember that the Respiratory system is made up of many different organs.

**Prompt (For the Visual Ranking workspace)**

Instructions on what criteria students should consider as they rank the list. Word the prompt so that students know that they should sort all items and not just pick out the best. This question or statement will appear on the top of the students' list to rank.

**Sorting List (For the Visual Ranking workspace)**

Items to rank. Maximum of 16 short-length items or 12 long-length items. Optimal number to sort is 7-12 items. Ensure there is no unintentional bias in the order of your list; you may want to alphabetize it.

**Seeing Reason Elements (Complete this section if this tool will be used in the unit)**

**Seeing Reason Project Name (For the Seeing Reason workspace)**



*A descriptive title for your project. This name could specifically reference the purpose or use of the Seeing Reason Tool in your unit. This title will appear in the Student Workspace, as well as above your students' Seeing Reason maps.*

**Project Description (For the Seeing Reason workspace)**

*A focused, short paragraph that describes the project to your students and explains how they will use the Seeing Reason Tool to help them answer the questions of the unit. It explains why this is a project or problem that is worthy of study as well as defines what your students will try to solve, produce, respond to, test, recommend, or find out.*

**Research Question (For the Seeing Reason workspace)**

*What is the Respiratory System?*

**Showing Evidence Elements (Complete this section if this tool will be used in the unit)**

**Showing Evidence Project Name (For the Showing Evidence workspace)**

*A descriptive title for your project. This name could specifically reference the purpose or use of the Showing Evidence Tool in your unit. This title will appear in the Student Workspace as well as above your students' Showing Evidence cases.*

**Project Description (For the Showing Evidence workspace)**

*A focused, short paragraph that describes the project to your students and explains how they will use the Showing Evidence Tool to help them answer the questions of the unit. It explains why this is a project or problem that is worthy of study, as well as defines what your students will be trying to solve, produce, respond to, test, recommend, or find out.*

**Prompt (For the Showing Evidence workspace)**

*The direct question that students will respond to in their argument case, which requires the investigation and gathering of evidence to validate a claim.*

**Unit Details**

**Approximate Time Needed**

4-5 days

**Prerequisite Skills**

Use of the knowledge of MS Word, MS Excel, MS PowerPoint

**Procedures**

Teacher: - Teacher explains about the concept of Respiratory system.

Student: - Students are listening & learning about the information.

Teacher: - Teacher explains the objectives of Respiratory System.

Student: - Students will try to understand the objectives of Respiratory System.

Teacher: - Teacher describes Environmental value education.

Student: - Students learn about Environmental value education.

Teacher: - Teacher explains the Scientific Temper.

Student: - Students understand & learn the Scientific Temper.

Teacher: - Teacher also explains the role of teacher in Respiratory System.

Student: - Students are listening carefully & understand it.

Teacher: - Teacher asks the question-"What is the role of a student?"  
 Student: - Students give the answer of the question.

**Accommodations for Differentiated Instruction**

Source Content:	They collect the information about the Respiratory System.
Language Support:	<i>Describe language support, such as English Language Learner (ELL) instruction and tutoring from more able bilingual students or community volunteers. Describe adaptive materials, such as first-language texts, graphic organizers, illustrated texts, dual-language dictionaries, and translation tools. Describe modifications in how students express their learning, such as first language rather than English or an oral interview instead of a written test.</i>
Assessment:	Asked difficult questions, student's participation. One independent project consisting of slide presentation 2-4 slides.

**Materials and Resources Required For Unit**

Text Materials:	8 <sup>th</sup> std. Text-book, reference book,
Supplies:	-
Hardware - Technology:	Computer, LCD Projector
Software - Technology:	MS Office , Multimedia
Internet sources:	<i>Web addresses (URLs) that support the implementation of your unit or Web sites that students will use as a starting point for gathering information and evidence.</i>
Other Resources:	<a href="http://www.google.co.in">www.google.co.in</a>



# UNIT PLAN TEMPLATE

Unit Author	
First and Last Name	Dhagyshri Gangadhar Kharak (71)
College District	Nashik
College Name	Matoshri shikshan sharshra mahavidhyalay Tal. Dist. Nashik
College City, State	Eklahare Dist. Nashik, State. Maharashtra

Unit Overview	
Unit Title	शैविकविविधता
Unit Summary	<ul style="list-style-type: none"><li>➤ जैवविविधता म्हणजे जीवांच्या विविध प्रजाती होय .</li><li>➤ निरनिरळ्या जीवांत आकार, आकृती, अन्नगहणाच्या गवयी, अवयव, जीवनक्रम यांमधे अयत्ने .</li><li>➤ एकाच जातीच्या जीवांच्या शरीररचना, जीवनपध्दती व निवासस्थानाच्या जागा यांत विविधता अयत्ने .</li><li>➤ सजीव वेगवेगळ्या पर्यावरणात राहतात .</li><li>➤ अफाट लोकसंख्या, अन्नधान्य व निवासस्थानासाठी जमिनीची वाढणी, नैर्गिक स्रोतांचा अपर्यादवापर ही जैवविविधतेच्या -हान्याची कारणीकारणे आहेत .</li><li>➤ -हानस पावणा-या प्रजातींच्या संवर्धन व संरक्षणासाठी विविध योजना जाले जात आहेत .</li></ul>
Subject Area	सा . विज्ञान
Class Level	8 <sup>th</sup> Std
Approximate Time Needed	20 Min
Unit Foundation	Environment Protection and Scientific View

1) Curriculum-framing Questions	
Essential Questions	1) जैवविविधतेच्या -हान्याची विविध कारणे कोणती?
Unit Questions	1) जैवविविधतेचे महत्त्व कोणते?
Content Questions	1) सजीवांमधील विविधता नेमकी कोणत्या घटकां वा अवतदिमूनयेते? 2) दुर्मिल जातीच्या जीवांसाठी रक्षणासाठी कोणत्या उपाययोजना जाले जात आहेत?

Assessment Plan		
Assessment Timeline		
Before project work begins	Students work on projects and complete tasks	After project work is completed

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## UNIT PLAN TEMPLATE

<b>Unit Author</b>	
<b>First and Last Name</b>	Bhagyshri Gangadhar kharak (71)
<b>College District</b>	Nashik
<b>College Name</b>	Matoshri shikshan sharshra mahavidhyalay Tal. Dist. Nashik
<b>College City, State</b>	Eklahare Dist. Nashik, State. Maharashtra

<b>Unit Overview</b>	
<b>Unit Title</b>	शैविकविविधता
<b>Unit Summary</b>	<ul style="list-style-type: none"> <li>➤ जैवविविधता म्हणजे सजीवांच्या विविध प्रजाती होय .</li> <li>➤ निरनिरळ्या सजीवांत आकार, आकृती, अन्नग्रहणाच्या अवयवी, अवयव, जीवनक्रम यांमध्ये असते .</li> <li>➤ एकाच जातीच्या सजीवांच्या शरीररचना, जीवनपध्दती व निवारणाच्या जागा यांत विविधता असते .</li> <li>➤ सजीव वेगवेगळ्या पर्यावरणात राहतात .</li> <li>➤ अफाट लोकसंख्या, अन्नधान्य व निवारण्यासाठी जमिनीची वाढती मागणी, नैसर्गिक स्रोतांचा अमर्याद वापर ही जैवविविधतेच्या -हामाची काही कारणे आहेत .</li> <li>➤ -हाम पावणा-या प्रजातींच्या संवर्धन व संरक्षणासाठी विविध योजना जाले जात आहेत .</li> </ul>
<b>Subject Area</b>	सा . विज्ञान
<b>Class Level</b>	8 <sup>th</sup> Std
<b>Approximate Time Needed</b>	20 Min
<b>Unit Foundation</b>	Environment Protection and Scientific View

<b>1) Curriculum-framing Questions</b>	
<b>Essential Questions</b>	1) जैवविविधतेच्या -हामाची विविध कारणे कोणती?
<b>Unit Questions</b>	1) जैवविविधतेचे महत्त्व कोणते?
<b>Content Questions</b>	1) सजीवांमधील विविधता नेमकी कोणकोणत्या घटकां वा वतदिसून येते? 2) दुर्मिळ जातीच्या सजीवांसाठी रक्षणासाठी कोणकोणते उपाययोजना जाले जात आहेत?

<b>Assessment Plan</b>	
<b>Assessment Timeline</b>	
<b>Before project work begins</b>	Students work on projects and complete tasks
<b>After project work is completed</b>	After project work is completed



Discuss about Meaning of biodiversity. What is Biotechnology?	Biodiversity, Environmental Importance	Observation schedule for the contribution of every Student involved in the project.  Student collect the data as per the requirement of analysis, like Biodiversity, Environmental Importance, etc.	Student Presentation assessment guidelines  Observation schedule, About Biodiversity  Newsletter Guidelines	Quiz Competition  Test on the knowledge get from the project.	Essay Competition
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### Assessment Summary

Before project start teacher will organize informal discussion to check the understanding of students about difficulties in subject, there will be the easy questioning to check the skill level of students, teachers will form check list. Teacher will give article to students to know the theme and concept of topic & understanding will be checked with the help of checklist. To make a presentation students presentation rubric will be prepared. Every student's contribution is essential so observation schedule will be developing. At the end of the project quiz competition, objectives test and interview of the presenter will be developed.

### Unit Details

#### Prerequisite Skills

1. Use of computer for data storage, presentation, retrieving, printing, dissemination of information through publication-newsletter/brochure/website.
2. Accessing Internet for getting more information on topic
3. General knowledge of the student should be good
  - 1) awareness about social responsibility
  - 2) They should be able to communicate with people effectively
  - 3) They should be able to use MS office
  - 4) They also know how to handle the computer.

They also know the presentation skill with the help of computer.

#### Instructional Procedures

Module 5 : Create a student sample and draft Instructional Procedures.

Update Instructional Procedures to include :

Module 6 : Assessment methods used throughout unit

Module 7 : Differentiation Strategies

Module 8 : Facilitation and implementation strategies

#### Accommodations for Differentiated Instruction

##### Special Needs Students

There are some below average students extra guidance by the group leader will be given, students will learn according to their learning styles, an artist student will be given suitable activity to him.

Student knows about the Project.

##### Nonnative Speakers

In the groups some Hindi, Gujarati language speaking students are there so at the theme of orientation of the masses they will orient the people of these language because, in Ahemadnagar MIDC area multilingual people are there.

##### Gifted/Talented

1. We take extra classes for extra ordinary student

Students	2. Also we arrange difference types of competition. 3. Other activities. 4. They will be group leaders in different groups 5. Student understands Project Tiger and wildlife conservations Import ants.
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**Materials and Resources Required For Unit**

Module 7: Draft ideas to support all learners and create support material.

Technology - Hardware (Click boxes of all equipment needed)		
<input checked="" type="checkbox"/> Camera	<input checked="" type="checkbox"/> Laser Disk	<input checked="" type="checkbox"/> VCR
<input type="checkbox"/> Computer	<input checked="" type="checkbox"/> Printer	<input checked="" type="checkbox"/> Video Camera
<input type="checkbox"/> Digital Camera	<input checked="" type="checkbox"/> Projection System	<input checked="" type="checkbox"/> Video Conferencing Equip.
<input checked="" type="checkbox"/> DVD Player	<input checked="" type="checkbox"/> Scanner	<input checked="" type="checkbox"/> Other
<input type="checkbox"/> Internet Connection	<input checked="" type="checkbox"/> Television	

Technology - Software (Click boxes of all software needed.)

<input checked="" type="checkbox"/> Database/Spreadsheet	<input type="checkbox"/> Image Processing	<input checked="" type="checkbox"/> Web Page Development
<input checked="" type="checkbox"/> Desktop Publishing	<input type="checkbox"/> Internet Web Browser	<input type="checkbox"/> Word Processing
<input checked="" type="checkbox"/> E-mail Software	<input checked="" type="checkbox"/> Multimedia	<input checked="" type="checkbox"/> Other
<input checked="" type="checkbox"/> Encyclopedia on CD-ROM		

Printed Materials Newspapers, Magazines, Books, Newsletter  
 Supplies Computer, LCD projector, digital camera, transparencies

Internet Resources	<a href="http://www.google.co.in/">http://www.google.co.in/</a> <a href="http://www.en.wikipedia.org/wiki/">www.en.wikipedia.org/wiki/</a> <a href="http://www.globalshiksha.com">www.globalshiksha.com</a> <a href="http://www.biodiversity.org">www.biodiversity.org</a>
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Other Resources	Guest Lecture, Seminar
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# Unit Plan Template

Click on any descriptive text, then type your own.

## Unit Author

First and Last Name **Bhangare Sachin Rajaram (100)**

School District **Nashik.**

School Name **Matoshri College of Education**

School City, State **Eklahare, Tal & Dist. Nashik.**

## Unit Overview

### Unit Title

**Perimeter**

### Unit Summary

#### Perimeter of a Rectangle

- The perimeter is the distance around a figure.
- The formulas are:

$$P = 2L + 2W$$

$$P = 2(L + W)$$

#### Perimeter of a Square

- The perimeter is the distance around a figure.
- The formula is:  $P = 4s$

#### Perimeter of a Triangle

- The perimeter is the distance around a figure.
- Add up all three sides.  $P = A + B + C$

#### Area of a Rectangle

- The number of square units needed to cover the surface of a figure.
- The formula is:  $A = L \times W$

#### Area of a Square

- The number of square units needed to cover the surface of a figure.
- The formula is:  $A = s^2$  or  $A = s \times s$



### Area of a Triangle

- The number of square units needed to cover the surface of a figure.
- The formula is:  $A = \frac{1}{2}bh$  or  $A = bh / 2$

### Volume

- The volume is the amount of space occupied by a three-dimensional object.
- The formula is  $V = L \times W \times H$

### Subject Area

MATHEMATICS.

### Grade Level

8<sup>th</sup> TO 10<sup>th</sup>

### Approximate Time Needed

4 week

### Unit Foundation

#### Targeted Content Standards and Benchmarks

Scientific Attitude

Inculcation of Scientific Temper

#### Student Objectives/Learning Outcomes

KNOWLEDGE : Student tells various shapes.

UNDERSTANDING: Student understand the importance of shapes

APPLICATIONS : Students use the formulas correctly

SKILL : Students solve the sums correctly by using formulas

#### Curriculum-Framing Questions

##### Essential Question

What is the perimeter of Rectangle?

What is the formula for perimeter of Rectangle ?

##### Unit Questions

What is the formula for perimeter of Triangle ?

##### Content Questions

Write the Steps for perimeter of Square ?

### Assessment Plan

### Assessment Timeline

Before project work begins		Students work on projects and complete tasks		After project work is completed	
<ul style="list-style-type: none"> <li>• Discuss about Perimeters of Rectangle &amp; its Formula.</li> <li>• How the formula will be used for perimeters of Rectangle?</li> </ul>	<p>Rectangle Square &amp; Triangle.</p>	<ul style="list-style-type: none"> <li>• Observation schedule for the contribution of every student involved in the project.</li> <li>• Student collect the data as per the requirement of analysis, like use of Formulas in examples, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Student Presentation assessment guidelines</li> <li>• Observation schedule, About perimeters</li> <li>• Newsletter Guidelines</li> </ul>	<ul style="list-style-type: none"> <li>• Quiz Competition</li> <li>• Test on the knowledge get from the project.</li> </ul>	<ul style="list-style-type: none"> <li>• Mathematical sums</li> <li>• solving examples</li> </ul>

### Assessment Summary

- ❖ THE PROCESS OF LEARNING WITH THE HELP OF VARIOUS TYPES OF TEACHING AIDS. THERE ARE VARIOUS TYPES OF PICTURES OF PLACES LIKE GEOGRAPHICAL CLASS ROOMS. TEACHER PROVIDES CHECKLIST TO STUDENT FOR WHICH TOPIC THEY LESS UNDERSTANDING THEN TEACHER ASKS QUESTION TO STUDENT FOR FEEDBACK.
- ❖ TEACHING WAS DONE ACCORDING TO STUDENT NEED.
- ❖ FOR THIS FIRST OF ALL WE PREPARED LIST OF NEEDS.
- ❖ FEEDBACK WAS TAKEN TO STUDY THE CHANGE IN BEHAVIOUR OF STUDENT.
- ❖ AS PER CHECKLIST WAS GIVEN AND THEN GET PERFECTLY EVALUATION
- ❖ TEACHING GIVES SCOPE TO STUDENT ACTIVITIES .

### Unit Details



**Prerequisite Skills**

TEACHER SHOWS WHICH VALUE CONTAIN IN CONENT AND CONCENTRATE ON VALUES AND CORE ELEMENTS.

**Instructional Procedures**

**Accommodations for Differentiated Instruction**

Special Needs  
Students

Nonnative  
Speakers

Gifted/Talented  
Students

**Materials and Resources Required For Unit**

**Technology - Hardware** (Click boxes of all equipment needed)

- |   |   |  |
|---|---|--|
| <input checked="" type="checkbox"/> Camera              | <input type="checkbox"/> Laser Disk                   | <input type="checkbox"/> VCR                       |
| <input checked="" type="checkbox"/> Computer(s)         | <input type="checkbox"/> Printer                      | <input type="checkbox"/> Video Camera              |
| <input checked="" type="checkbox"/> Digital Camera      | <input checked="" type="checkbox"/> Projection System | <input type="checkbox"/> Video Conferencing Equip. |
| <input type="checkbox"/> DVD Player                     | <input type="checkbox"/> Scanner                      | <input type="checkbox"/> Other                     |
| <input checked="" type="checkbox"/> Internet Connection | <input checked="" type="checkbox"/> Television        |  |

**Technology - Software** (Click boxes of all software needed.)

- |   |  |   |
|---|--|---|
| <input type="checkbox"/> Database/Spreadsheet       | <input checked="" type="checkbox"/> Image Processing | <input type="checkbox"/> Web Page Development       |
| <input type="checkbox"/> Desktop Publishing         | <input type="checkbox"/> Internet Web Browser        | <input checked="" type="checkbox"/> Word Processing |
| <input checked="" type="checkbox"/> E-mail Software | <input checked="" type="checkbox"/> Multimedia       | <input type="checkbox"/> Other                      |
| <input type="checkbox"/> Encyclopedia on CD-ROM     |  |   |

**Printed Materials** TEXTBOOK, REFERENCE BOOK, PICTURES

**Supplies**

**Internet Resources** [WWW.GOOGLE.COM](http://WWW.GOOGLE.COM), [WWW.G-MAIL.COM](http://WWW.G-MAIL.COM), [WWW.REDIFFMAIL.COM](http://WWW.REDIFFMAIL.COM).

**Other Resources**

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# Unit Plan

Note: Type in the gray areas. Click on any descriptive text and then type your own.

Unit Author	
STUDENT NAME:	Raut Mahesh Dayaram (11)
School NAME:	Matoshri College of Education, Eklahare
School State:	Nashik
Principal	Dr. V. B. Suryawanshi Mdm
Guide	Prof. Nilima Chaudhari Mdm
If your Project Portfolio is chosen to be uploaded to the Intel® Teach to the Future database or used as a sample in future materials, do you want your name displayed as the author? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

Unit Overview	
Unit Plan Title:	Non conventional energy
<b>Curriculum-Framing Questions</b>	
Essential Question	How can we save our Earth ?
Unit Questions	Which type of sources often founds in human being? <b>Do you know, the names of diseases which are incurable?</b>
Content Questions	<b>What is SOLAR?</b> <b>Do you know The long form of SOLAR?</b> <b>What is Solar energy?</b> <b>Which are the of SOLAR?</b> <b>How we can use solar energy?</b> <b>Which are available SOLAR products?</b>



## Unit Summary

- **Why the project was done**
  - To create awareness about use of SOLAR energy in students by various activities
  - To prevent pollutions and use maximum SOLAR
  - 
  - Role of the students will be playing -  
Student plays role of -  
Observer, researcher, guide
- Group Students arranges exhibition & distributes pamphlets for awareness in society & for that they makes slide shows, posters, charts.
- Task that they are do -
  - Guidance from teacher
  - Making of groups
  - Visit of solar house
  - Observations
  - Interviews
  - Discussions in class room
- Solutions -
  - To suggest suggestions and ways of preventions from SOLAR Products(Technology and products)they developed -
  - Student presentation
  - Students pamphlets
  - Posters and Articles for Exhibition.
  - Charts
  - Slide show for exhibition.

**Subject Area(s):** Click box(es) of the subject(s) that your Unit targets

- |  |   |  |
|--|---|--|
| <input checked="" type="checkbox"/> Mathematics    | <input checked="" type="checkbox"/> Science               | <input checked="" type="checkbox"/> Art: |
| <input type="checkbox"/> Economics                 | <input type="checkbox"/> Regional Language                | <input type="checkbox"/> Commerce:       |
| <input type="checkbox"/> Statistics                | <input type="checkbox"/> Physical Education               | <input type="checkbox"/> Other:          |
| <input type="checkbox"/> Business Administration   | <input type="checkbox"/> Computer Science                 | <input type="checkbox"/> Other:          |
| <input type="checkbox"/> Music                     | <input checked="" type="checkbox"/> Environmental Studies |  |
| <input checked="" type="checkbox"/> Language Arts  | <input type="checkbox"/> Home Science                     |  |
| <input checked="" type="checkbox"/> Social Studies |   |  |

**Class:** Click box(es) of the grade level(s) that your Unit targets

- |   |  |  |
|---|--|--|
| <input type="checkbox"/> Junior Kindergarten            | <input type="checkbox"/> Senior Kindergarten | <input checked="" type="checkbox"/> 9-10 |
| <input type="checkbox"/> 1-4                            | <input checked="" type="checkbox"/> 5-8      |  |
| <input type="checkbox"/> 11-12                          | <input checked="" type="checkbox"/> Resource |  |
| <input checked="" type="checkbox"/> Gifted and Talented | <input type="checkbox"/> Others:             |  |

### **School Examination Board Guidelines:**

Matoshni Asrabai Darade English Medium School, Eklahare

Grade 5-9

### **SCIENCE**

#### **Science Learning Standards**

1. Recognize and demonstrate how SOLAR products are effective.
2. Identify the different SOLAR products.
3. Suggest ways of prevention from pollutions
4. Increase public Awareness on this issue using natural energy.

#### **Language Arts**

1. Select and use reference materials and resources for writing
2. Collect information from a variety of sources (research)
3. Use available technology to compose text
4. Complete the writing process from planning, through drafting, editing, revising, and publishing

#### **Mathematics**

1. Will be able to present data in the form of tables.
2. Will be able to compare data with the help of charts and graphs.

#### **Technology Standards**

1. Perform computations using calculators, spreadsheets, and word processors.
2. Gather, organize, display, save, and manipulate information or data – in databases or spreadsheets
3. Collaborate and communicate (through electronic mail, word processors, multi-media presentational software)
4. Search and access diverse information and opinions from many parts of the world (telecommunications, electronic library access, bulletin boards)

#### **Student Learning Objectives:**

##### **Students Of Learning Objectives**

- ◆ Students describe the types of SOLAR products
- ◆ Students classify the stages of SOLAR cooker
- ◆ Students analyze the effect of SOLAR on human being
- ◆ Learn to conduct a collaborative study and make comparative analysis.
- ◆ Students evaluate quantity of SOLAR patients on the state level ,national level ,world level and express graphically
- ◆ student suggests ways of use maximum natural sources.



## **Procedures:**

### **Plan outline:**

Ahmednagar is a famous military Historical place having a beautiful nature ,now a days having information about SOLAR is important. Therefore students of class IX undertook the project.

### **Step 1 -Project Introduction**

The project is introduced to the students with a Project Introduction slideshow that gives an overview of the "changing life of man according to the time changes" project. The teacher poses the Essential question "How can we save our earth "and gives a brief overview of the basic concepts related to SOLAR

### **Step 2- Grouping of Students**

There are 55 students in class. So they divided into 11 groups. Each group has a one group leader for managing their group.

### **Step 3- Allocation of Time and Resources**

Teacher select main establishment in Ahmednagar for studying the solar material from it. Each group has one establishment.

In Diwali Vacation students visit their specific establishment.

### **Step 4 – Activities For The Group**

- GroupWise class presentation and discussion.
- Arrangement of Exhibition.

### **Step 5 –**

- Parent permission letter for guardian.
- Teacher gives template of various solars with the help of this template student exactly observed the Solar from specific establishment and classify them.

### **Step – 6 Research**

To begin with student work or a research exercise using Internet. Google and Yahoo search engines help them to understand about the solar, different solar ,management ,program implemented by various countries and states. While carrying out the research the students understands daily in daily routine.

And from that they study hard on their project and find out solutions and methods of management of solar in Nashik city.

### **Step – 7 Role Of The Student**

The student playing role of environmentalist are divided into 11 groups and are guided

to make a comparative study of average solar and it's management and for action plan to create awareness of environment in society.

### Step - 8 Action plan

Students planed following activities for good management of solar and awareness of environment for society.

- Pamphlet for Exhibition
- Students organizing a rally for awareness in Ahmednagar

### Step - 9 Student Assignment

- Puzzle
- Making Pamphlet for exhibition
- Slide show for exhibition

Approximately 10-15 weeks

#### Prerequisite Skills:

##### Conceptual Knowledge

Knowledge of what are Solar energy and different types of solar product.

##### Technological Skills

Basic use of computers

Creating power point presentation

Browsing the internet and using E-mail

#### Materials and Resources

Technology - Hardware: (Click boxes of all equipment needed)

- |   |   |                                 |
|---|---|---------------------------------|
| <input checked="" type="checkbox"/> Camera              | <input type="checkbox"/> Video Camera       | <input type="checkbox"/> VCR    |
| <input checked="" type="checkbox"/> Computer(s)         | <input checked="" type="checkbox"/> Printer | <input type="checkbox"/> Other: |
| <input checked="" type="checkbox"/> Digital Camera      | <input type="checkbox"/> Projection System  | <input type="checkbox"/> Other: |
| <input type="checkbox"/> Tape Recorder                  | <input checked="" type="checkbox"/> Scanner | <input type="checkbox"/> Other: |
| <input checked="" type="checkbox"/> Internet Connection | <input type="checkbox"/> Television         |                                 |

Technology - Software: (Click boxes of all software needed.)

- |  |  |   |
|--|--|---|
| <input checked="" type="checkbox"/> Database/Spreadsheet   | <input type="checkbox"/> Image Processing                | <input type="checkbox"/> Web Page Development       |
| <input checked="" type="checkbox"/> Desktop Publishing     | <input checked="" type="checkbox"/> Internet Web Browser | <input checked="" type="checkbox"/> Word Processing |
| <input type="checkbox"/> E-mail Software                   | <input checked="" type="checkbox"/> Multimedia           | <input type="checkbox"/> Other:                     |
| <input checked="" type="checkbox"/> Encyclopedia on CD-ROM |  |   |

Printed

Text Books of IX<sup>th</sup> standard of environment.

Materials:



Supplies:	Guidelines to the students for Exhibition, Table of types of natural sources.
Resources:	<a href="http://www.google.com/">http://www.google.com/</a> <a href="http://www.yahoo.com">http://www.yahoo.com</a>
Others:	exhibition
<b>Accommodations to support different levels of learners in your classroom</b>	
Resource Student:	Teacher gives clues for solving puzzles.
Gifted Student:	Teacher arranges quiz of high order thinking questions.
Student Assessment:	Group Research activity: assessment as per scoring rubric Group activity for gifted students: assessment as per scoring rubric Assignment for resource students: assessment as per scoring rubric Evaluation for student multimedia presentation, and pamphlet as per rubric.
Key Word Search:	Solar, energy ,renewable energy



# Unit Plan Template

Note: Type in the gray areas.

Unit Author	
First and Last Name	Kharote Amit Subhash (96)
Author's E-mail Address	Amitkharote1992@gmail.com
College Name	Matoshri college of education ( B.Ed)
College Address	Eklahare, Tal. & Dist. Nashik.
Course Address	B.Ed, Course.
College Phone	0253-2406612
Principal's Name	Dr. Suryawanshi V. P.
Guide	Prof. More Kapoor

Unit Overview	
Unit Plan Title	What is Global Warming?
<b>Curriculum-Framing Questions</b>	
Essential Question	Why Does an Insurance Company Care about Climate Change? How many jobs and how much income will be lost?
Unit Questions	How Hot is Too Hot? Climate impact of Global Warming ?
<b>Unit Summary</b>	
<p>Global Warming is defined as the increase of the average temperature on Earth. As the Earth is getting hotter, disasters like hurricanes, droughts and floods are getting more frequent.</p> <p>Over the last 100 years, the average temperature of the air near the Earth's surface has risen a little less than 1° Celsius (0.74 ± 0.18°C, or 1.3 ± 0.32° Fahrenheit). Does not seem all that much? It is responsible for the conspicuous increase in <u>storms</u>, <u>floods</u> and <u>raging forest fires</u> we have seen in the last ten years, though, say scientists.</p> <p>Their data show that an increase of one degree Celsius makes the Earth warmer now than it has been for at least a thousand years. Out of the 20 warmest years on record, 19 have occurred since 1980. The three hottest years ever observed have all occurred in the last ten years, even.</p>	



**Subject Area(s):** 1) Science 2) Geography.

**Grade Level** (Click boxes of all grade levels that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> K-2                 | <input type="checkbox"/> 3-5               |
| <input type="checkbox"/> 6-8                 | <input checked="" type="checkbox"/> 9-12   |
| <input type="checkbox"/> ESL                 | <input type="checkbox"/> Resource          |
| <input type="checkbox"/> Gifted and Talented | <input checked="" type="checkbox"/> Other: |

**Student Objectives/Learning Outcomes**

\*KNOWLEDGE\*

\* COMPREHENSION\*

- 1) Student tells that why the growing middle class did not take part in Global Warming.

\* INTEREST \*

- 1) Students get more information about Global Warming

**Procedures**

- \* Teacher introduced topic by asking questions.
- \* Teacher states the aim clearly.
  - \* Today we are going to learn Global Warming. .
- \* Presentation.
  - \*Teacher explains unit with the help of explanation, narration as well as questions.

**Approximate Time Needed** (Example: 45 minutes, 4 hours, 1 year, etc.)

**Prerequisite Skills**

*Conceptual knowledge and technological skills that students must have to begin this Unit.*

**Materials and Resources Required For Unit**

Technology – Hardware (Click boxes of all equipment needed.)

- |   |  |  |
|---|--|--|
| <input checked="" type="checkbox"/> Camera              | <input type="checkbox"/> Laser Disk            | <input type="checkbox"/> VCR                       |
| <input checked="" type="checkbox"/> Computer(s)         | <input checked="" type="checkbox"/> Printer    | <input checked="" type="checkbox"/> Video Camera   |
| <input checked="" type="checkbox"/> Digital Camera      | <input type="checkbox"/> Projection System     | <input type="checkbox"/> Video Conferencing Equip. |
| <input type="checkbox"/> DVD Player                     | <input checked="" type="checkbox"/> Scanner    | <input checked="" type="checkbox"/> Other:         |
| <input checked="" type="checkbox"/> Internet Connection | <input checked="" type="checkbox"/> Television |  |

Technology – Software (Click boxes of all software needed.)

<input checked="" type="checkbox"/> Database/Spreadsheet	<input checked="" type="checkbox"/> Image Processing	<input type="checkbox"/> Web Page Development
<input checked="" type="checkbox"/> Desktop Publishing	<input checked="" type="checkbox"/> Internet Web Browser	<input checked="" type="checkbox"/> Word Processing
<input checked="" type="checkbox"/> E-mail Software	<input checked="" type="checkbox"/> Multimedia	<input checked="" type="checkbox"/> Other:
<input checked="" type="checkbox"/> Encyclopedia on CD-ROM		

Printed Materials    Text Book of 6<sup>th</sup> standard of C.B.S.E. Board, H.S.C., S.S.C., B.A.

Supplies

Resources    Web addresses (URLs) and digital resources that support the *Implementation of your Unit.*

Others    *Guest speakers, mentors, field trips, etc.*

**Accommodations for Differentiated Instruction**

Resource Student    *Modified requirements, differentiated instruction and assessment, extended work time, guiding templates, support structures, and personnel.*

Gifted Student    *More challenging tasks, extensions that require in-depth uncoverage, extended investigation in related topics of the learner's choice, open-ended tasks or projects.*

**Student Assessment**

*A description about how the assessments are conducted. The context and specific procedures for evaluating student learning. Assessment could occur through interview, observation, journals, essays, quizzes, tests, and final products. Assessments can be conducted by the teacher, peers, and/or the students themselves.*

**Key Word Search:**    *Key words include common phrases terms topics, and vocabulary that are important to your Unit.*



- |  |  |   |
|--|--|---|
| <input checked="" type="checkbox"/> Database/Spreadsheet   | <input checked="" type="checkbox"/> Image Processing     | <input type="checkbox"/> Web Page Development |
| <input checked="" type="checkbox"/> Desktop Publishing     | <input checked="" type="checkbox"/> Internet Web Browser | <input type="checkbox"/> Word Processing      |
| <input checked="" type="checkbox"/> E-mail Software        | <input checked="" type="checkbox"/> Multimedia           | <input type="checkbox"/> Other:               |
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