

| Lesson Plan/ Learning Plan                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                               |
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| Topic- MEASUREMENT-TIME                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Grade: IV                                                                                                                                                     |
| Concept (If Applicable)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | TIME IN TWO WAYS-12 HOURS AND 24 HOURS CLOCKS                                                                                                                 |
| <u>Mapping of skills/competencies/attitudes :</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | SKILLS-COMMUNICATION, SOCIAL, THINKING<br><br>COMPETENCIES-CRITICAL, COMMUNICATION, COLLABORATIVE, CHARACTER<br><br>ATTITUDE- BALANCED,REFLECTIVE, RESPECTFUL |
| Lesson Plan Duration :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b><u>15 days</u></b>                                                                                                                                         |
| Learning Engagements for Active Learning:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | BRAINSTORMING<br><br>PAIR-SHARE<br><br>AUDIO VIDEO<br><br>LIVE OBJECTS FROM MATH LAB N CLASS ROOM                                                             |
| Questioning Technique/s to be Used :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | PROBING, PPPB, DEAL                                                                                                                                           |
| <b>Learning objectives:</b><br><br><b>By the end of the topic, the learners will be able to: (<i>write in pointers, use verbs from Bloom's Taxonomy</i>)</b> <ul style="list-style-type: none"> <li>❖ Recall the concept of time -how to read and draw hands in a clock for given time</li> <li>❖ Convert the given units of time from big unit of time to smaller unit and vis versa</li> <li>❖ Convert to Interpret the digital time to 12 hour time and vis versa</li> <li>❖ Solve the addition and subtraction of minutes and hours sums and word stories</li> <li>❖ Define and Compare to rearrange the various events in TIME LINE and compare the expiry and manufacturing dates of different products forever lasting memory in real life</li> </ul> |                                                                                                                                                               |
| Annexure 1 (Kolb's Model)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                               |
| Connecting to Prior knowledge                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b><u>INSIDE-OUTSIDE CIRCLE- Brain Storming</u></b>                                                                                                           |

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| <p><b><i>(How do you check what learners already know?)</i></b></p>                                                                 | <p>They will discuss on- Talk about why time is important to us.</p> <p>Discuss the various facts.(hands, units ,time-o clock , half past quarter, past /to, am/pm)</p> <p>Talk about how the smaller/larger units of time are converted</p> <p>Which basic operations are involved in this conversion.</p> <p>The children will discuss and conclude the basic information about time.</p> <p>C: -Communication-Communicate effectively</p> <p>Critical Thinking- system thinking</p>  |
| <p><b>Resources Required:</b></p>                                                                                                   | <p>A sample of a clock, calendar, ppts,</p>                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <p><b>Implementation of lesson plan - Stage 1</b></p>                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|                                                                                                                                     | <p><b><u>PPPB: Warming up:Using a model of clock</u></b></p> <p>1. Pose: If the minute hand is at 3 and the hour hand is also just below 3. What time is it?</p> <p>2. pause: What if minute hand moves five minutes ahead?</p> <p>3. Pounce: What is quarter past?</p> <p>Day 1:IP Q1. Draw hands to represent the given time and write the time in two ways.</p> <p><i>(learning engagements connected to the real life like what if questions, using objects from real life)</i></p> |
| <p><b>Proceeding further</b></p> <p><b><i>(What strategies will be used in the class to achieve the lesson objectives?)</i></b></p> | <p>Day2- HOT SEATS-15 MIN. TOPIC CONVERSION-Questions-</p> <p>1. How many seconds are there in a minute?</p> <p>2. How many minutes make an hour?</p> <p>3. which basic operation skill do we use to convert larger unit of time to the smaller unit?</p> <p><i>(Eg-converting 2 minutes to seconds, we need to multiply)</i></p>                                                                                                                                                       |

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|  | <p>4. If one hour has 60 minutes, then how many minutes would 3 hours have?</p> <p>5. Which basic operation would you use to convert smaller unit of time to larger and smaller units?</p> <p>Eg: convert 1050 minutes to hours and minutes, we need to <u>divide</u>.</p> <p>C: communication – access and evaluate information</p> <p>C: critical thinking-uses system analysis</p> <p>Day-3- Oral Questionnaire - Think pair share</p> <p>Probing questions: How will you convert seconds in to minutes and seconds</p> <p>Q3: Convert seconds in to minutes and seconds. in Note book.</p> <p>Day-4 Inductive to deductive: The Learners will work in group of fours. (reader, speaker, recorder, writer)They will be asked to-</p> <ul style="list-style-type: none"> <li>- write the positions of hands,</li> <li>- show the given time (situations-when does PT period start? When do you have fruit break? Break time, when does the bell ring for home time and so on) in clocks in two ways using am or pm.</li> </ul> <p>C: Collaboration- interact effectively</p> <p>C: communication-communicate clearly</p> <p>C: critical thinking-Use system thinking to deduce the new learning.</p> <p>Through the LE. They will deduce the digital timing leading to next day's understanding.</p> <p>Day-5,6 Think pair share – Video on digital time(railway time) followed by an exercise in note book from DTs Q-6 and Q7</p> <p><a href="https://www.youtube.com/watch?v=ajDGriNrI8">https://www.youtube.com/watch?v=ajDGriNrI8</a></p> <p><a href="https://www.youtube.com/watch?v=pcozCTWRgaw">https://www.youtube.com/watch?v=pcozCTWRgaw</a> (a song on digital clock for understanding with fun)They will try to learn and sing the song together.</p> |
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|  | <p>C: communication</p> <p><i>Day-7,8 -Probing questions.(CAF)</i></p> <p>1. What makes it 60? (to derive combinations for -<br/>10+50, 15+45, 20+40, 25+35, 30=30)</p> <p>2. How we do manage extra minutes if the total of minutes is more than 60?</p> <p>3. 45 +35=80 (how many hours and minutes?)i</p> <p>4. How would you subtract if you have less minutes? (borrow One complete hour)</p> <p>IP-Q8 -Add the following hours and minutes.</p> <p>Q9- Subtract the following hours and minutes:</p> <p>C: communication-communicate clearly</p> <p>Day-9- Framing word stories in the class room situations and around. Each child will think (to provoke thinking some examples will be discussed ) and frame a story on time, some will do it spontaneously, some will write , some will write from home.....</p> <p>C: Critical thinking</p> <p><i>(The Facilitator allows learners to do hands -on activities like bringing objects to the classroom, live demonstration, peer-coaching, think-pair-share, using puzzle cards, using ones' own body to represent something, Visit to Art Galleries, 'One minute Questions', Misconception check, pair-share-repeat etc. ,where the child discovers <b>or constructs knowledge and immerses into experiences leading to the AHAA moment!</b>)</i></p> <p><i>Day 1</i></p> <p><i>Moving from simple to complex with simple learning engagements like brainstorming, Class discussions</i></p> <p><i>Day 2</i></p> <p><i>Guided practice based on the concept.</i></p> <p><i>Day 3</i></p> |
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|                                                                                                                                                                                                                  | Concept building using inductive/deductive methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Learning Logs</b><br><i>(How learners keep a track of what they are learning, includes reflections)</i>                                                                                                       | <p><b>:Day 1</b><br/> Questionnaire-The facilitator will prob in between to get a feedback and extend learning by posing Big questions.<br/> Day-2- IP Q.2and4.in note book Day-3 Q-3 in DTS<br/> Day-4- The learners know that how smaller unit of time are converted to larger units and vis versa by comparing the basic operations' application.<br/> Day 5- comparing digital clock with 12 hour clock will help them in better understanding of concept of conversion.<br/> Day7,8 IP-Q8-addition and Q-9subtraction of minutes and hours in note book.<br/> The facilitator will ask them to do write their own story in note book and attempt word stories from DTs as well which will be discussed in class room orally.<br/> Day-10 A work sheet on time line will be read and concluded for Time Line definition.<br/> Day-11 IP- Each child will be asked to jot down special dates in his/her life.(minimum5-6)<br/> Eg- the day you were welcomed on this earth, the day you got your first tooth,etc... some would do now some would need time to find out..give time to them. <b>(They might represent these activities by drawing or pasting pictures as well.)</b><br/> Then ask them to arrange in the order -'What happened first ,second and so on.</p> |
| <b>Lesson Plan : Stage 2</b>                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Formatives/Unit test</b><br><br><b><i>*Integration of Arts/ICT</i></b><br><i>(leads to creation, generates interest, builds curiosity, emotional connect through performing Arts leading to AHAA moment!)</i> | <b>ICT LINK:</b><br><a href="http://www.softschools.com/quizzes/math/telling_time/quiz1957.html">http://www.softschools.com/quizzes/math/telling_time/quiz1957.html</a><br><a href="https://www.education.com/game/clock-match-five-minutes/">https://www.education.com/game/clock-match-five-minutes/</a><br>Class test, PPPB strategy, reflections, CAF, feedbacks,<br>Time line presentation on A4 or slide in Power point..                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

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| <p><b>Teacher Interventions</b></p> <p><i>(Addressing the concerns and issues faced during the transactions)</i></p>    | <p>Day-3 The facilitator will intervene during the activity to check for understanding of conversion of smaller units to large and small unit of time. Eg 1050 minutes= _____ hours and ____ min. (<math>1050 \div 60</math>)</p> <p>Day-4- The facilitator will intervene to deduce the concept of digital clock time.</p> <p>Day7-The facilitator will intervene to check for understanding of the concept of 24 hour clock.</p> <p>Day 9-The facilitator will listen to each story and give a feedback and reflection as motivation (<b>Pass and Praise</b>-they would not give their story until they receive a praise which makes them happy.</p> |
| <p><b>Extending the Lesson Further</b></p> <p><i>(Creating through Active experimentation)</i></p>                      | <p><i>Research which other countries follow 12 hour clock timing along with India and why?</i></p> <p><i>Power point presentation</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <p><b>Summative Assessment</b> <i>(How will the facilitator check that learning objectives have been achieved?)</i></p> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <ul style="list-style-type: none"> <li>● Pen paper Test</li> <li>● Class test, FA</li> </ul>                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |