

Math

Small Group Center Resource

Unit – Clocks

October 10, 2018

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Week Schedule

	Teacher Instruction (Small Group)	Individual Work	Technology	Assessment
Monday	Give out Individual Clocks – Model different times	Creation of Individual Clocks *Teachers Pay Teachers	“Hickory Dickory Dock” Book – Listen Online – Create Online Book	Demonstration of Clock Manipulation - Teacher Checklist Hickory Dickory Dock online book
Tuesday	“Telling time with Big Mama Cat” – Allow students to manipulate clock	Plato Clocks	Clock Match: Time to Half Hour www.education.com/game/clockmatch	Minute Hand Worksheet: Demonstrating knowledge of two different hands: Hour and Minute
Weds.	Predictions Center: Fill in remainder of Paper Plate Clocks: Guiding Instruction (Paper Plate Clocks	“Learning How to Tell Time on a Clock” Video (first half of the video) https://youtu.be/8RjzoyIVzV8	Manipulation of Created Clocks
Thurs.	White Board Manipulation: Teacher: Analog Clock Student: Write Digital Form	Give Mini Clocks Worksheet with times – Pipe Cleaners and Buttons: Creation of Digital Clock	BrainPOP Time to the Hour Video: https://youtu.be/F02OuDOrXq0	Math Playground: Puzzle Pics Clocks Self-Correcting Assessment
Friday	Summative Assessment – Draw in the Hands on Clocks Read Analog Clocks and write in time on digital clocks	Digital and Analog Matching	“Learning How to Tell Time on a Clock” Video (show whole video) https://youtu.be/8RjzoyIVzV8	Digital and Analog Matching Completion

Math Standard for the Week - :

1.MD.B.3 - Tell and write time in hours and half-hours using analog and digital clocks.

*20 Minutes per rotation – 3 rotations per day with formative assessments at the end

Explain to students how rotations will work within the classroom – Group placements will be on the board each day (Group A, B ,C)

Monday (Day 1)

Objective: Introduction to clocks. What is a clock and why do we use it? How do we read the numbers and hands on a clock? Why are there two hands on the clock and what are their purposes? Excite students by informing them that today will be the very first day of their clock unit.

Time with Teacher	Independent Work	Computer Time
<p>Learners will be given mini clocks to manipulate. Teacher will model how to show the different times on a clock dealing with an hour and half hours. Learners will then use manipulatives to show times ex. (1:00, 2:30)</p>	<p>Creation of Individual Clocks</p> <p>*An example drawn by the teacher will be placed on the board to guide learners*</p> <p>Throughout this independent work, learners will create their own clocks, with an example for guidance, to build knowledge of where numbers are placed on a clock</p>	<p>Listening to Story: “Hickory Dickory Dock” – draw own images of the story to create online art book</p>

Differentiation:

Will be based upon learners’ progress throughout the week. Learners formative assessment, as well as other forms of summative assessments (fill-in-the blank worksheets, understanding of manipulations, clock creations, etc.) will also help to determine learners’ skills.

Below proficiency: Only work with hours during teacher instruction. Create individual clocks with a partner. Find online images for creation of book versus drawing.

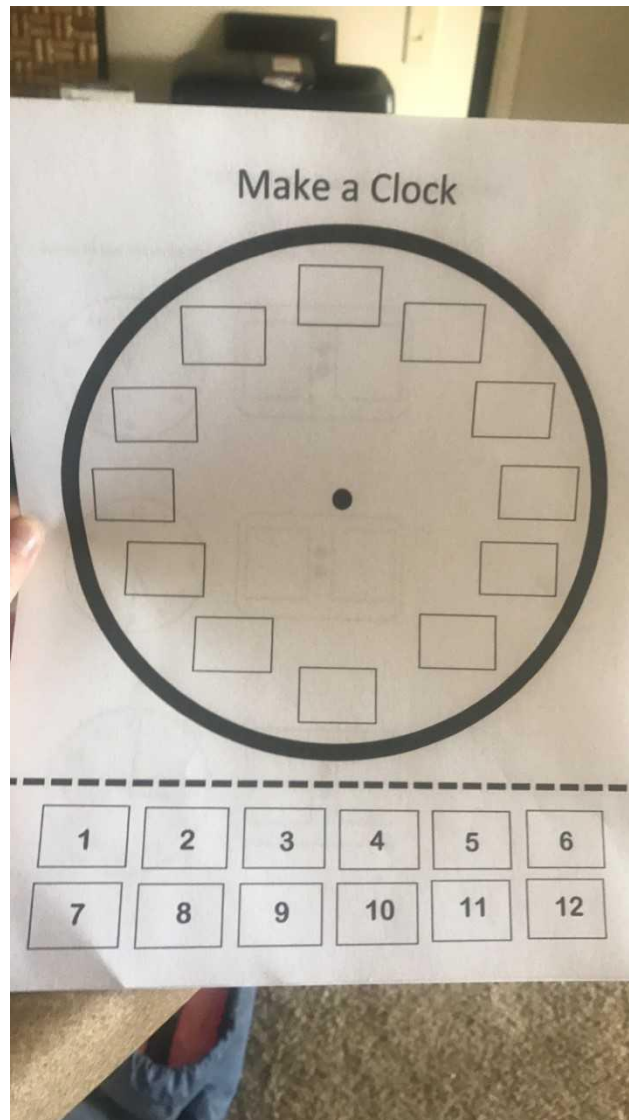
Emerging Proficiency: Do activities as designed

Above Proficiency: Begin dealing with quarter hours during teacher instruction. Create individual clock without guidance on the white board. Add writing to pictures for the online book.

Materials: Pre-planned before class

- Charged Computers
- Manipulation mini clocks
- Construction Paper
- Velcro Strips

Example of Individual Clocks:



Formative Assessment:

1. The teacher will create a checklist of each individual students' performance during out teacher instruction.
2. The teacher will assess the online "Hickory Dickory Dock" books created by learners (accuracy, chronological order of events in story, characteristics of characters)

Checklist Examples:

(Below Proficiency) :

12:00	1:00	2:00	3:00	4:00
✓	X	✓	✓	✓

(Emerging Proficiency)

12:00	12:30	1:00	1:30
✓	✓	✓	X

(Above Proficiency)

12:00	12:15	12:30	1:00
X	✓	✓	✓

Tuesday (Day 2)

Objective: Begin using manipulations to show different times (hours, half hours) on an analog clock. Begin demonstrating the correlation between an analog clock and a digital through matching.

Time with Teacher	Independent Work	Computer Time
<p>"Telling time with Big Mama Cat" – this is a great book about telling time that will be read to learners. Since working in small group, learners will be able to manipulate the manipulations found within the book while discussing with the teacher</p>	<p>Plato Clocks In this fun activity, learners will be taking the individual clock plates created on Monday and manipulating green and red plato as the minute and hour hand. Learners will then practice creating different hours and half hour times found in digital form on the board. Learners will be asked to create one specific time with their</p>	<p>Clock Match: https://www.education.com/game/clock-match-five-minutes/ Interactive game for learners to begin practicing matching different times of analog clocks to digital clocks. Self-assessed</p>

	manipulations (ex. 3:30) to be assessed by teacher	
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Differentiation:

Below Proficiency: Teacher will model the manipulations in the book during teacher instruction. Learners will only focus upon half hour times during independent work

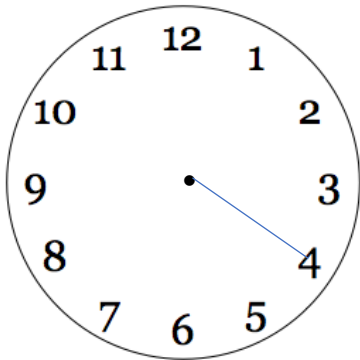
Emerging Proficiency: Do activities as designed

Above Proficiency: Learners will practice creating quarter hours in their plato clocks during individual work.

Materials: Pre-planned before class

- Charged Computers
- Monday's individual work creations
- Red and Green Plato
- "Telling Time with Big Mama Cat" Book
- Formative Assessment Sheets

Formative Assessment Example Problem:



It is 4:00. Which hand is missing? ____ (hour) ____

Wednesday (Day 3)

Objective: Begin demonstrating how to read an analog clock. Begin demonstrating the difference between hours and half hours on an analog clock

Time with Teacher	Independent Work	Computer Time
<p>Predictions Center: Fill in remainder of Paper Plate Clocks: Guiding Instruction</p> <p>Show students pre-made example of paper plate clock. Begin discussing in whole group how to read this clock. What the difference between hour and half hours are (O'Clock or 30)</p> <p>Show students a time on the clock and have them predict what we will say</p>	<p>Paper Plate Clocks</p> <p>Engaging hands-on activity where learners will create paper plate clocks to read time</p>	<p>"Learning How to Tell Time on a Clock" Video (first half of the video) https://youtu.be/8RJzoylVzV8</p>

Differentiation:

Below Proficiency: Will watch the teacher fill in the remainder of the paper plate clock with guided explanation. Will create paper plate clock with a peer (or aid)

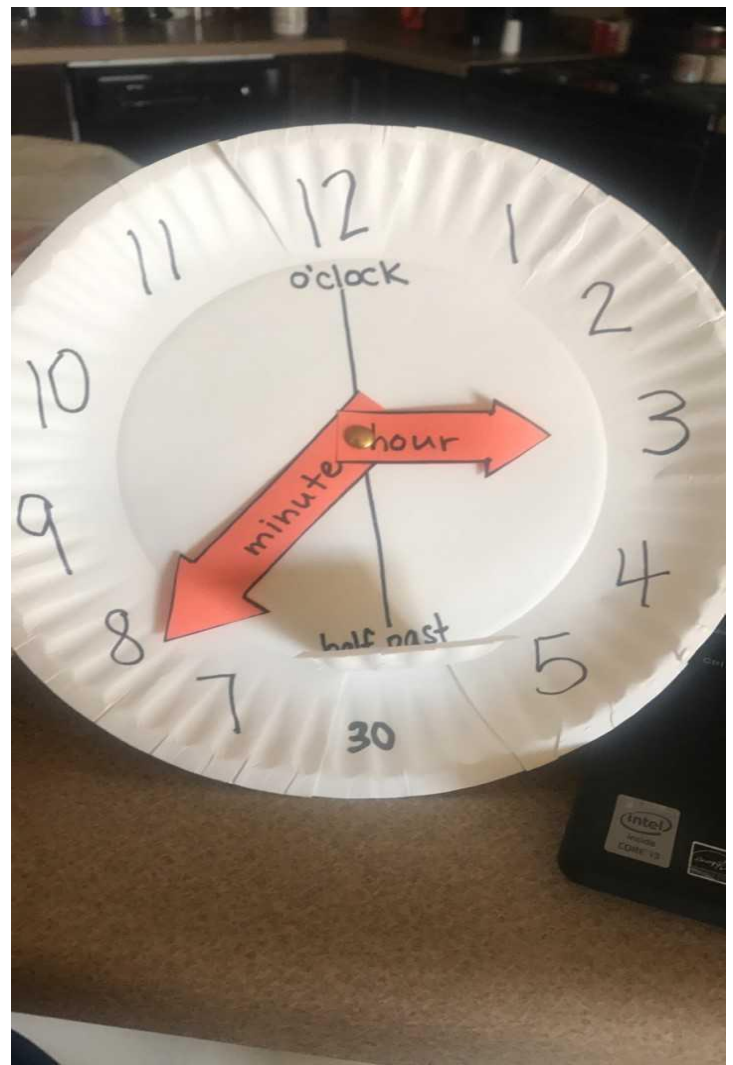
Emerging Proficiency: Do activities as designed

Above Proficiency: Will guide and teach learners how to create the entire paper plate clock during teacher instruction. Learners will complete the paper plate clock during independent work.

Materials: Pre-planned before class

- Charged Computers
- Paper Plates/Markers/Construction Paper
- Scissors

Example of Paper Plate Clocks:



Formative Assessment: Handed in Paper Plate Clocks

Thursday (Day 4)

Objective: Begin transferring knowledge of reading an analog clock to reading a digital clock and vice versa

Time with Teacher	Independent Work	Computer Time
<p>White Board Manipulation: Teacher: Analog Clock Student: Write Digital Form</p> <p>With a white board the teacher will draw different times for</p>	<p>Give Mini Clocks Worksheet with times for learners to read. With Pipe Cleaners and Buttons, learners will create digital forms of the times</p>	<p>BrainPOP Time to the Hour Video: https://youtu.be/F02OuDOrXq0</p>

learners to read on a drawn analog clock. Learners will then have to write down that time in digital form on their white boards		
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Differentiation:

Below Proficiency: During teacher instruction, learners will only work with digital clocks. Learners will be paired with a partner for individual work

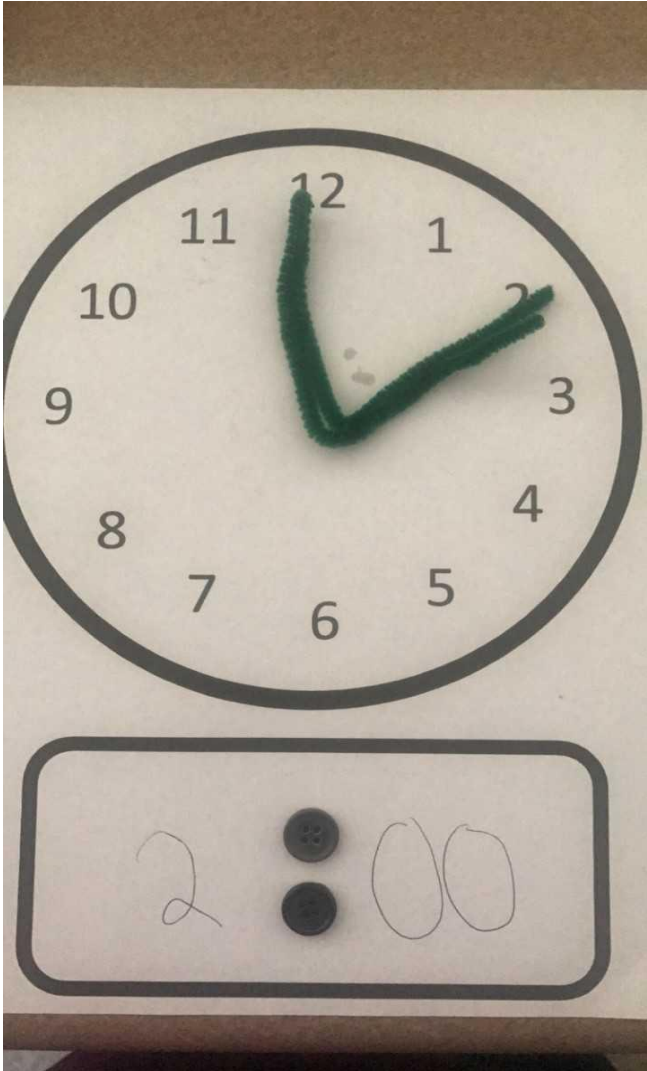
Emerging Proficiency: Do activities as designed

Above Proficiency: Have learners begin showing quarter times on digital clocks during teacher instruction. Have learners create quarter times throughout individual work

Materials – Preplanned before class

- Mini white boards
- Charged Computers
- Mini Clocks worksheets
- Pipe Cleaners/Buttons

Example of Mini Clocks Worksheets:



Formative Assessment: Math Playground: Puzzle Pics Clocks Self-Correcting Assessment

https://www.mathplayground.com/puzzle_pics_clocks.html

Friday (Day 5)

Objective: Demonstration of knowledge with reading clocks. Demonstrating knowledge of reading and matching both analog and digital times

Time with Teacher	Independent Work	Computer Time
<p>Summative Assessment – Draw in the Hands on Clocks Read Analog Clocks and write in time on digital clocks</p> <p>Learners will be told a time to write on a blank clock. Using knowledge of the different hands (hour, minute) they will create the time. Learners will then read examples of analog clocks to match with digital clocks with the group</p>	<p>Digital and Analog Matching</p> <p>This will be an interactive game learners will play independently to math analog clock times with digital!</p>	<p>“Learning How to Tell Time on a Clock” Video (show whole video) https://youtu.be/8RJzoyIVzV8</p>

Differentiation:

Below Proficiency: More teacher instruction (practice) before moving forward. Only match analog and digital clocks with hours (ex. 1:00, 2:00, etc.)

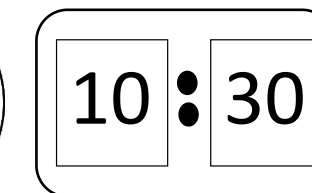
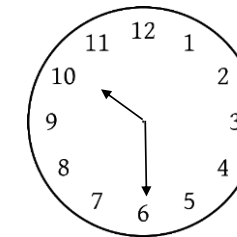
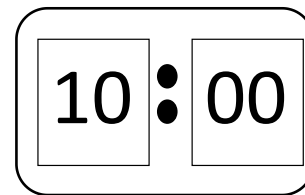
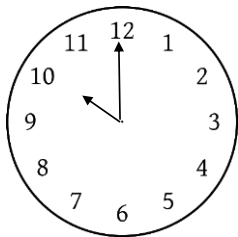
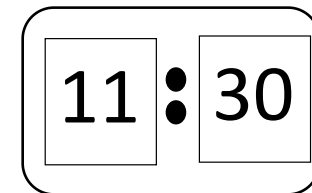
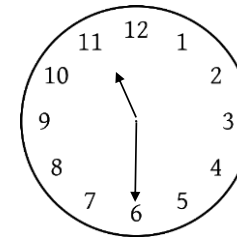
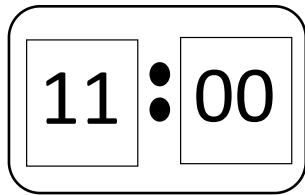
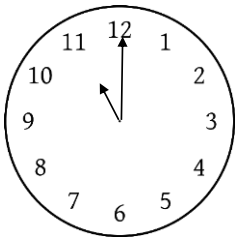
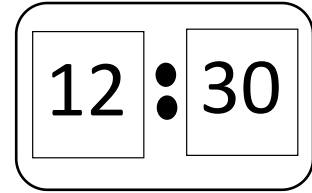
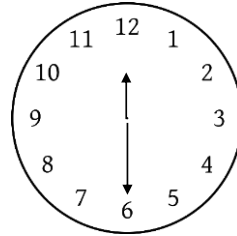
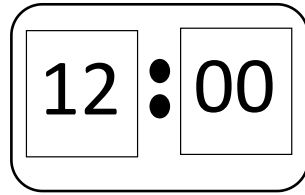
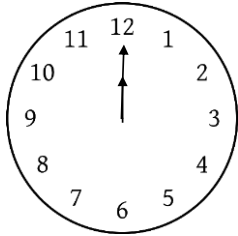
Emerging Proficiency: Do activities and assessments as designed

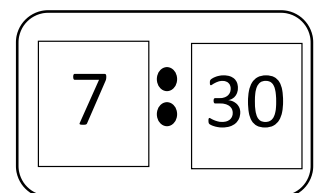
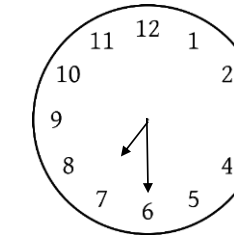
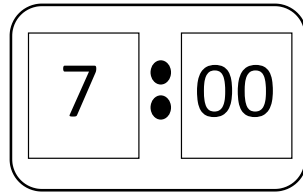
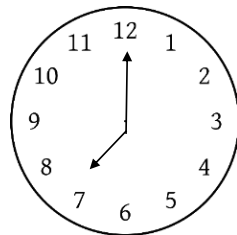
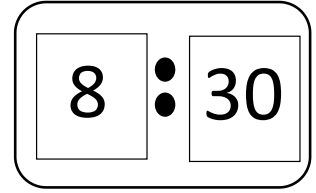
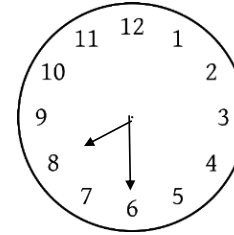
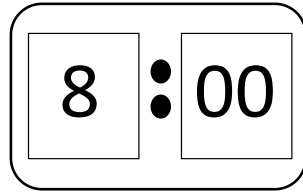
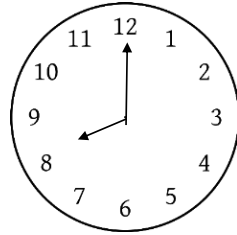
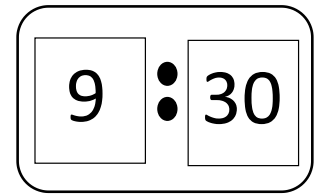
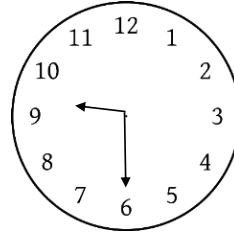
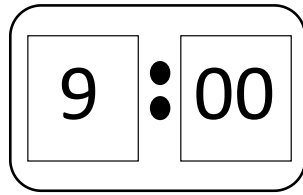
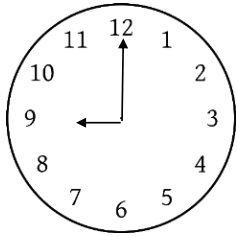
Above Proficiency: Do independent matching with times of quarter hours

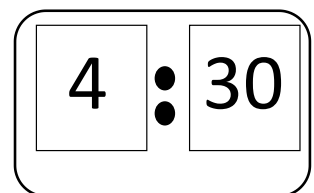
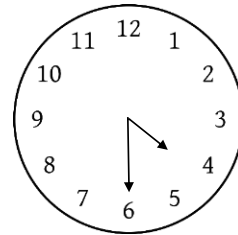
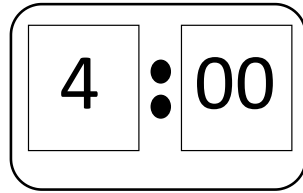
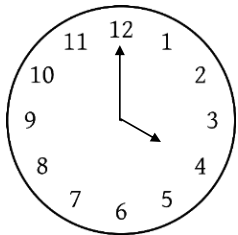
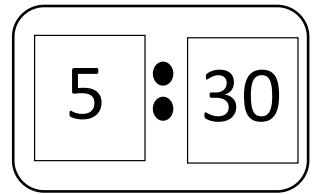
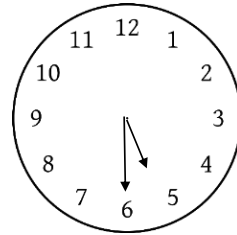
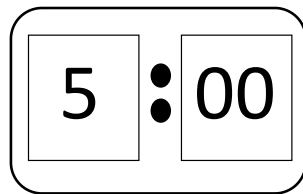
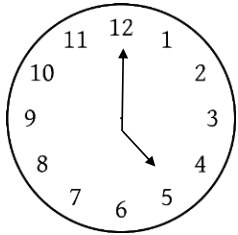
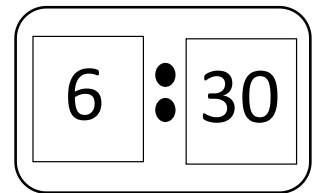
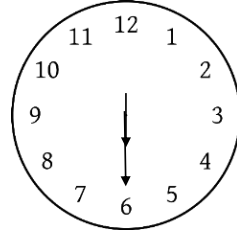
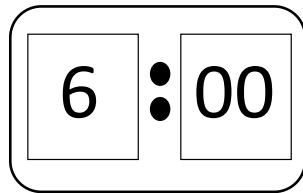
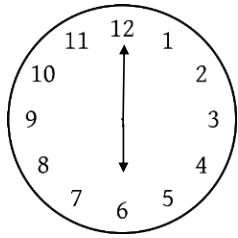
Materials: Pre-planned before class

- Blank digital clocks
- Charged Computers
- Analog and Digital Matching Game

Example:







Formative Assesment: Learners will have to cut and glue the analog and digital matching game to a blank piece of paper. This will be graded by the teacher.