East Wake Middle School Daily Lesson Plan

Teacher: Hall

Lesson Date: May 14th - 18th

Subject: Math 6

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| **Common Core//Essential Skill Standard(s):** *(What are the skills being taught? Which standards are being specifically addressed in these lessons?***6.SP.1** Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in  the answers.**6.SP.2** Understand that a set of data collected to answer a statistical question has a distribution which can be described by its center, spread, and overall shape.**6.SP.3** Recognize that a measure of center for a numerical data set summarizes all of its values with a single number, while a  measure of variation describes how its values vary with a single number.**6.SP.4** Display numerical data in plots on a number line, including dot plots, histograms, and box plots.**6.SP.5** Summarize numerical data sets in relation to their context, such as by: **a**. Reporting the number of observations. **b**. Describing the nature of the attribute under investigation, including how it was measured and its units of measurement.  **c**. Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation),  as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context pattern with reference to the context in which the data were gathered. **d**. Relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data were  gathered. |
| **The Learning Targets**: (Written in student friendly language)**Monday:** Students will be able to find the mean, median, mode, and range of data.**Tuesday:** Students will use data to create box and whisker plots.**Wednesday:** Students will use data to create box and whisker plots.**Thursday:** Students will create and use histograms to display intervals of data.**Friday:** Students will create and use histograms to display intervals of data. |
| **Vocabulary:** Analyzing Data, Box Plot, Center, Cluster, Collecting Data, Continuous Data, Data, Discrete Data, Distribution, Dot Plot, Five-Number Summary, Frequency Table, Gap, Histogram, Inter-Quartile Range, Interpreting Data, Interval, Line Plot, Lower Quartile, Maximum Value, Mean, Mean Absolute Deviation, Measures of Center, Measures of Variability, Median, Minimum Value, Mode, Outlier, Peak, Quartiles, Range, Skewed, Spread, Statistics, Summary Statistics, Symmetrical, Upper Quartile, Variability |

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|  |  | Monday | Tuesday | Wednesday | Thursday | Friday |
|  | **Engage****Greet students with a handshake at the door.****“Good Things”** | ~Teacher Greets Students at the Door with a handshake.~T/SW do “Good Things” (sw lead this each day/select student leader for the week) | ~Teacher Greets Students at the Door with a handshake.~T/SW do “Good Things” (sw lead this each day/select student leader for the week) | ~Teacher Greets Students at the Door with a handshake.~T/SW do “Good Things” (sw lead this each day/select student leader for the week) | ~Teacher Greets Students at the Door with a handshake.~T/SW do “Good Things” (sw lead this each day/select student leader for the week) | ~Teacher Greets Students at the Door with a handshake.~T/SW do “Good Things” (sw lead this each day/select student leader for the week) |
|  5 min | **Xplore****Success Starter:** *(What meaningful and relevant activity will students complete as soon as they enter the classroom?)***“Good Things” Teacher determines when this will take place, beginning, middle, or maybe end of class if appropriate.** | SW complete Success Starter “Two Daily Word Problem” which requires them to choose a word problem to explain their thinking using writing weekly.T/SW do “Good Things”[Unit 13 Vocabulary](https://drive.google.com/open?id=1VAvcwr-32wTMaq1m0mBvfhQbOpP9PaQggZie3ogdKC4)[Quarter 4 Week 4 Spiral Review](https://drive.google.com/open?id=1oFTMTDOM3zCxhgUK74TbPeEUblJLPC9o) | SW complete Success Starter “Two Daily Word Problem” which requires them to choose a word problem to explain their thinking using writing weekly.T/SW do “Good Things” | SW complete Success Starter “Two Daily Word Problem” which requires them to choose a word problem to explain their thinking using writing weekly.T/SW do “Good Things” | SW complete Success Starter “Two Daily Word Problem” which requires them to choose a word problem to explain their thinking using writing weekly.T/SW do “Good Things” | SW complete Success Starter “Two Daily Word Problem” which requires them to choose a word problem to explain their thinking using writing weekly.T/SW do “Good Things” |
| 10 min | **Communicate****Whole Group Instruction:** *(Focused lessons [explicit teaching/modeling, strategy demonstration,graphic supports, activate prior knowledge], shared reading, shared writing, video clips, illustrations, discussion, writing process.)* | TW begin the lesson by having students take out their video notes from last night and review as a whole class the “You Try” portion.[Unit 13 Video 4 Notes](https://drive.google.com/open?id=1nbvkI9rRSPh4CNWIqE2KIoqy6SDiAgzc)TW then explain to students that today they will be rotating around the room to complete 4 different stations on Mean, Median, Mode, and Range..TW review classroom expectations/rules for working in stations.TW explain that students will need to rotate through the stations in their groups, but must show all their work individually.[Mean, Med, Mode, and Range Activity](https://drive.google.com/open?id=1jCVnbYISCqIKimQTrf1EIOrcHNmY1btj) | TW begin by having students take out their video notes from the night before. TW model thinking aloud how to solve the problems using “In Class Practice”. (Teacher may choose student leaders to model this section)[Unit 13 Video 5 Notes](https://drive.google.com/open?id=1CLaTWA4WGzzOYk68ylR1ARE2P6PRcNNs)TW then have students make observations on the following box and whisker plot.(see directions)[Box and Whisker Plot](https://drive.google.com/open?id=0B68Rhu0F2PwtckJGZ1JnamZuOTA)TW review through a whole class discussion that measures of variability/variation can be described using the interquartile range or the Mean Absolute Deviation. The interquartile range (IQR) describes the variability between the middle 50% of a data set. It is found by subtracting the lower quartile from the upper quartile. It represents the length of the box in a box plot and is not affected by outliers. (Students find the IQR from a data set by finding the upper and lower quartiles and taking the difference)TW then have the students look again at the box and whisker plot and find the IQR of the data.**Solution:**The first quartile is 132.5; the third quartile is 142.5. The IQR is 10 (142.5 - 132.5). This value indicates that the values of the middle 50% of the data vary by 10.TW explain that today we will work on box plots - A box plot shows the distribution of values in a data set by dividing the set into quartiles. It can be graphed either vertically or horizontally. The box plot is constructed from the five-number summary (minimum, lower quartile, median, upper quartile, and maximum). These values give a summary of the shape of a distribution. (Students understand that the size of the box or whiskers represents the middle 50% of the data).  | TW begin the lesson by having students take out their video notes from last night and review as a whole class the “You Try” portion.[Unit 13 Video 6 Notes](https://drive.google.com/open?id=1dslrB4dg3bSKHR_olW6_9nZ33oGh7rpS)TW display and model how to use the given data to create a box and whisker plot using “Box Plot Investigations”TW make sure to model aloud how to create and answer the questions that go along with the activity.[Box Plot Investigations](https://drive.google.com/open?id=0B68Rhu0F2PwtN05BTXBkbnFkWVE)[Box Plot Answer Key](https://drive.google.com/open?id=0B68Rhu0F2PwtS0M5eVlTQ3J3SVU)SW follow along with their copies.TW pause throughout to ask questions and make sure students are following along. | TW begin by having students take out their video notes from the night before. TW model thinking aloud how to solve the problems using “In Class Practice”. (Teacher may choose student leaders to model this section)[Unit 13 Video 7 Notes](https://drive.google.com/open?id=1UiVISHiKJE3Dc6iYSZkCwadinVzqoqFr)SW then take out their unit 13 glossary and making sure all new vocabulary has been added.TW explain that today students will be working with histograms.A histogram shows the distribution of continuous data using intervals on the number line. The height of each bar represents the number of data values in that interval. In most real data sets, there is a large amount of data and many numbers will be unique. A graph (such as a dot plot) that shows how many ones, how many twos, etc. would not be meaningful; however, a histogram can be used. Today you will group the data into convenient ranges and use these intervals to generate a frequency table and histogram.TW have students take out “Histogram Notes” and review as a whole class.TW model Constructing a histogram, making sure to think aloud during the process.[Histogram Notes](https://drive.google.com/open?id=0B68Rhu0F2PwtYm5VLUloQkhUdTg)[Histogram Notes Key](https://drive.google.com/open?id=0B68Rhu0F2PwtSXl1T3pKSzYxdUE) | TW begin the lesson by explaining to students that for the first part of class they will be working in their table groups to complete two task that involve Histograms.TW review classroom expectations/rules for working in groups.TW review each task with the students and allow them to discuss and make any notes.[Histogram Task 1](https://drive.google.com/open?id=1Jqi44w9Teq4RzNROgpN5Ba0-hn9AfgDL)[Histogram Task 2](https://drive.google.com/open?id=1z4yHY9lhXh6F8lSV48MWbi5EftBmQgE0) |
| 25 min | **Empower****Group Activity//Small Group Instruction:** (teacher-facilitated group discussion, student learning team activity, re-teaching or intervention) | SW continue to rotate around the room completing the stations.Once complete TW select student leaders to share out their answers and discuss as a whole class making sure to use math vocabulary.[Mean, Med, Mode, and Range Activity](https://drive.google.com/open?id=1jCVnbYISCqIKimQTrf1EIOrcHNmY1btj) | TW have students take out “ Magic Numbers”TW read through with the students and have them work on finding the five numbers needed tofind a box and whisker plot. TW work through the first page together as a whole class.SW continue onto the second page “Box and Whisker Plot Activity Sheet” working with a partner.TW rotate around the room to provide assistance where needed.[Five Magic Numbers](https://drive.google.com/open?id=0B68Rhu0F2PwtMExYbjlyMVlsX3c) | SW work with a partner to complete “I’m Lovin It Your Way”[I'm Lovin It Your Way](https://drive.google.com/open?id=0B68Rhu0F2PwtTnRPZGI0VGVwbXM)TW circulate through the room to give assistance where needed and to listen to math discourse.If Time Permits: SW independently complete Box Plot Exit Ticket[Box Plot Exit Ticket](https://drive.google.com/open?id=0B68Rhu0F2PwtOV9rcW9fTDk1Ukk) | SW work with their table groups to complete problem number 1 on “Histogram Notes”[Histogram Notes Problem 1](https://drive.google.com/open?id=0B68Rhu0F2PwtYm5VLUloQkhUdTg) | SW share out expectations during this time.SW select their table leader, recorder, and time keeper. (All students will present when completed)SW begin working on their two Histogram Tasks.TW rotate around the room to provide assistance when needed or to clear up any misconceptions.Once complete TW select table groups to share out their answers and discuss as a whole class making sure to use math vocabulary.[Histogram Task 1](https://drive.google.com/open?id=1Jqi44w9Teq4RzNROgpN5Ba0-hn9AfgDL)[Histogram Task 2](https://drive.google.com/open?id=1z4yHY9lhXh6F8lSV48MWbi5EftBmQgE0) |
| 10 min | **Independent Practice**: *(individual practice, discussion,)*  | SW continue to rotate around the room completing the stations.Once complete TW select student leaders to share out their answers and discuss as a whole class making sure to use math vocabulary.If Time Permits: SW independently complete pages 127 - 128 on the below attachment.[Statistics workbook (pick out pages for them to do)](https://drive.google.com/open?id=1U6Mu6z26sxM3djVmlozzwFqjxi_5bByy)**Homework:** SW need to watch Unit 13, Video 5 and complete the homework portion of their notes.[Unit 13 Video 5 Notes](https://drive.google.com/open?id=1CLaTWA4WGzzOYk68ylR1ARE2P6PRcNNs)[Unit 13 Video 5](http://bit.ly/2ntfQGo)  | SW continue to work with their partner to complete “Box and Whisker Plot Activity Sheet”[Five Magic Numbers](https://drive.google.com/open?id=0B68Rhu0F2PwtMExYbjlyMVlsX3c)TW select student leaders to share out answers.**Homework:** SW need to watch Unit 13, Video 6 and complete the homework portion of their notes.[Unit 13 Video 6](https://www.youtube.com/watch?v=wqRcAGbCQY0) [Unit 13 Video 6 Notes](https://drive.google.com/open?id=1dslrB4dg3bSKHR_olW6_9nZ33oGh7rpS) | SW independently complete Evidence 1 on Mastery Connect.[https://student.masteryconnect.com](https://student.masteryconnect.com/)**Homework:** SW need to watch Unit 13, Video 7 and complete the homework portion of their notes.[Unit 13 Video 7 Notes](https://drive.google.com/open?id=1UiVISHiKJE3Dc6iYSZkCwadinVzqoqFr)[Unit 13 Video 7](http://bit.ly/2nLsqkM)  | SW independently complete problem number 2 on Histogram Notes and turn in to the teacher.[Histogram Notes Problem 2](https://drive.google.com/open?id=0B68Rhu0F2PwtYm5VLUloQkhUdTg)**Homework:** SW complete Histogram Homework 1[Histogram HW 1](https://drive.google.com/open?id=0B68Rhu0F2PwtaXFlNkd4UEh5Mk0) | SW independently compete the Statistics Formative Assessment. (Student performance will determine the WIN groups for next week)[Statistics Formative Assessment](https://drive.google.com/open?id=179sFbSzX_k-ODj3DAF5h4YBs4rXmeGkh)**Homework:** Student will complete the Quarter 4 Case 21 Math Study Guide[Quarter 4 Case 21 Review](https://drive.google.com/open?id=1K8J9kZxhc9erL-cDVn2nd5AR3eY4vEcY) |
| less than 5 min | **Launch****Evaluate Understanding/Assessment:** *(How will I know if students have achieved today’s objective? Exit ticket, performance task, collaborative google doc, rubric, self and peer assessment, grade cam*  | Mean, Median, Mode, and Range Task Cards | Box and Whisker Plot Activity Sheet | Evidence 1 on Mastery Connect | Histogram Notes problem 2 | Histogram TasksStatistics Formative Assessment |
| 29min | **WIN Time****(What I Need)** | This will change daily depending on student needs.~Students that need enrichment will work on Khan Academy or Project Based Learning Activity~PBL: Book Project~Students that need intervention will work with the teacher on that particular skill or Mrs. Huff.**Notes:** | This will change daily depending on student needs.~Students that need enrichment will work on Khan Academy or Project Based Learning Activity~PBL: Book Project~Students that need intervention will work with the teacher on that particular skill or Mrs. Huff.**Notes:** | This will change daily depending on student needs.~Students that need enrichment will work on Khan Academy or Project Based Learning Activity~PBL: Book Project~Students that need intervention will work with the teacher on that particular skill or Mrs. Huff.**Notes:** | This will change daily depending on student needs.~Students that need enrichment will work on Khan Academy or Project Based Learning Activity~PBL: Book Project~Students that need intervention will work with the teacher on that particular skill or Mrs. Huff.**Notes:** | This will change daily depending on student needs.~Students that need enrichment will work on Khan Academy or Project Based Learning Activity~PBL: Book Project~Students that need intervention will work with the teacher on that particular skill or Mrs. Huff.**Notes:** |

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| **Enrichment/Extension/Re-teaching/Accommodations:** *How will my lesson satisfy the needs of all learners? How will you scaffold for your EC and or ESL learners?*Students will be on iReady and Khan Academy for support and remediation on their devices and at home.Lessons may change depending on student needs and exit ticketsMath 6+ will have SuperStars on Tuesday and Pull Out PBL Activity with Ms. Forrest weekly during WIN Time.All classes have Remediation done daily during our intervention block. Remediation is based off of student need.Other classes have an enrichment activity with Ms. Forrest during WIN Time (Algebra Book Project: Digital)Mrs. Huff pulls students on Wednesday and Thursday during WIN Time in both 1st and 5th Period for remediation of skills needed. |