East Wake Middle School Daily Lesson Plan

Teacher: Hall

Lesson Date: April 30th - May 4th

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.G.2** Find the volume of a right rectangular prism with fractional edge lengths by packing it with unit cubes of the appropriate unit fraction edge lengths, and show that the volume is the same as would be found by multiplying the edge lengths of the prism. Apply the formulas V = l w h and V = b h to find volumes of right rectangular prisms with fractional edge lengths in the context of solving real-world and mathematical problems.  **6.G.4** Represent three-dimensional figures using nets made up of rectangles and triangles, and use the nets to find the surface area of these figures. Apply these techniques in the context of solving real-world and mathematical problems. |
| **The Learning Targets**: (Written in student friendly language)  **Monday:** Students will find the surface area of Rectangular & Triangular Prisms & Pyramids  **Tuesday:** Students will find the surface area of Rectangular & Triangular Prisms & Pyramids  **Wednesday:** Students will find volume and surface area using real world problems.  **Thursday:** Students will find volume and surface area using real world problems.  **Friday:** Students will complete a performance task demonstrating knowledge learned throughout Unit 12. (Evidence 3) |
| **Vocabulary:** Base, Edge, Face, Height, Isosceles, Net, Polyhedron, Pyramid, Right rectangular prism, Triangular prism, Vertices, Area, Decomposing,  Dimensions, Surface Area, Volume |

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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 12 Vocabulary](https://drive.google.com/open?id=0B68Rhu0F2PwtU2MtZ0p5Wlg1Z1U)  [Quarter 4 Week 2 Spiral Review](https://drive.google.com/open?id=1CrAqTOvquolUHjiPCg_vs3tKQqTrb1z9) | 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.  TW then review as a whole class the “In Class portion of the notes. (Depending on student level, teacher may select student leaders to model problems)  [Unit 12 Video 6 Notes](https://drive.google.com/open?id=1UIax1ZnRn80YoulYDKKIvOcy4DPW8HUf)  TW review three-dimensional shapes and nets with students using the following resources: [matching review](http://www.interactivestuff.org/match/maker.phtml?featured=1&id=15) and [cube](http://illuminations.nctm.org/activitydetail.aspx?ID=84).  TW give each student a copy of the "Net project guide/Nifty Nets" and several sheets of inch [graph paper](http://incompetech.com/graphpaper/plain/).  TW review the step by step directions on the "Net project guide/Nifty Nets". Students will also find the volume and surface area of each shape.  [Nifty Nets](https://drive.google.com/open?id=0B68Rhu0F2PwtX0xZanp5eGtSbUU)  [Rubric for Nifty Nets](https://drive.google.com/open?id=0B68Rhu0F2PwtV2t5ZWlMMXM1UkU) | TW explain to students that today will be a review what what we have learned about surface area.  TW explain that students will work in table groups to complete 12 different task cards.  TW pass out the recording sheet for each student to have and fill out.  [Surface Area Review Task Cards](https://drive.google.com/open?id=0B68Rhu0F2PwtVnE0bWhSS3lGLU0)  [Surface Area Review Recording Sheet](https://drive.google.com/open?id=0B68Rhu0F2PwtUERWNEVpeHlpOUU) | TW explain to students that today they will be working on surface area and volume in a real world context.  TW begin the lesson by constructing a venn diagram and labeling each section with volume and surface area.(See page 2 in the lesson plan) TW read statements and as a class place them in the appropriate section.  [Real World Context Lesson Plan](https://drive.google.com/open?id=0B68Rhu0F2PwtWktjcHY5MWRJTkk)  TW then model how to work through the following problem making sure to think aloud (see lesson plan for answer)  Vincent put logs in the shape of a rectangular prism outside his house. However, it is supposed to snow, and Vincent wants to buy a cover so the logs stay dry. If the pile of logs creates a rectangular prism with these measurements: 𝟑𝟑 𝐜𝐦 long, 𝟏𝟐 𝐜𝐦 wide, and 𝟒𝟖 𝐜𝐦 high, what is the minimum amount of material needed to cover the pile of logs? | TW explain to students that today they will be rotating around the room to complete 3 different stations on Volume and Surface Area.  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.  [Volume and Surface area stations](https://drive.google.com/open?id=13x4ZwIuqemGXuKzO-WGgg_buW3KGJkQE) | TW explain that today students will be independently completing a Performance Task to demonstrate the combined knowledge they have learned in Unit 11 in a Real World Scenario.  TW review the directions and rubric as a whole class.  [Evidence 3 Performance Task](https://drive.google.com/open?id=1x-5sMTG9hW122wEulp68V6vd-6ncLc63)  [Unit 12: Surface Area and Volume Performance Task 3](https://drive.google.com/a/wcpss.net/file/d/0BzNo4UBREaUbdkdna2Fyd3FjZWs/view?usp=sharing) |
| 25 min | **Empower**  **Group Activity//Small Group Instruction:** (teacher-facilitated group discussion, student learning team activity, re-teaching or intervention) | SW work with a partner to complete “Nifty Nets”.  TW rotate around the room to assist when needed and to clarify any misconceptions.  TW have student leaders share out when the whole class as completed the project. | SW work in table groups to complete the 12 different task cards make sure to individually record their answers.  TW rotate through the room to listen to student conversations as well as to help clear up any misunderstandings.  TW will display the task cards on the board and select student leaders to share/model how they solved.  If time permits: SW independently complete the Surface Area Exit Ticket  [Surface Area Exit Ticket](https://drive.google.com/open?id=0B68Rhu0F2PwtdUQzam5WQnNvYkU) | SW work with a partner or in their table groups to solve the following six real world problems. (Teacher may opt to model one or two more using the word problems below)  [Real World Surface Area and Volume](https://drive.google.com/open?id=0B68Rhu0F2PwtaHdtSnQxQ2d3dkU)  TW rotate around the room to assist where needed and to listen in on student conversations.  TW select student leaders to share out their answers.  During whole class discussion TW ask the following questions:  Is it possible for two containers having the same volume to have different surface areas? Explain.  If you want to create an open box with dimensions 3 inches × 4 inches × 5 inches, which face should be the base if you want to minimize the amount of material you use? | 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.  [Volume and Surface area stations](https://drive.google.com/open?id=13x4ZwIuqemGXuKzO-WGgg_buW3KGJkQE) | SW discuss in their table groups expectations for the Performance Task.  TW have various student leaders share out. |
| 10 min | **Independent Practice**: *(individual practice, discussion,)* | SW independently complete “Finding Surface Area” and turn in.  [Finding Surface Area](https://drive.google.com/open?id=0B68Rhu0F2PwteldtSk1zUGhTbFU)  **Homework:** SW need to watch Unit 12, Video 7 and complete the homework portion of their notes.  [Unit 12 Video 7](https://www.youtube.com/watch?v=uDpo3h54XGA)  [Unit 12 Video 7 Notes](https://drive.google.com/open?id=11iO7j0H8FdLIm9czwL3h9tImfb35tHAP) | SW independently complete Evidence 2 on Mastery Connect.  [https://student.masteryconnect.com](https://student.masteryconnect.com/)  **Homework:** Students will complete “Surface Area Review” for homework  [Surface Area Review](https://drive.google.com/open?id=0B68Rhu0F2PwtQ1kySnc1aXZNVG8) | SW independently complete “Real World Context Exit Ticket” and turn in.    [Real World Context Exit Ticket](https://drive.google.com/open?id=0B68Rhu0F2PwtZy1FZUFaeDFfbXc)    **Homework:** Students will complete Application of Surface Area and Volume for homework.  [Application of Surface Area and Volume](https://drive.google.com/open?id=0B68Rhu0F2PwtSG94Sm9hTG9WWm8) | SW independently complete the 4 multiple choice questions at the end of the link above. (Make sure to make student copies of the independent part above: last 4 questions)  **Homework:** Students will complete Find the Surface Area    [Find the Surface Area](https://drive.google.com/open?id=0B68Rhu0F2PwtS3dsNzIwdG9PS3M) | SW independently complete Unit 12 Performance Task. (Evidence 3)  **Homework:** SW complete Unit 12 study guide  [Unit 12 Study Guide/Review](https://drive.google.com/open?id=1T-Bj-9JpDEXOYOxsxJ608d20wqwEX6pcYFxWpY_LAik) |
| 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* | Finding Surface Area | Surface Area Exit Ticket | Student Discussions  Real World Context Exit Ticket | Volume and Surface Area Stations  Volume and surface Area multiple Choice Questions. | Unit 12 Performance Task. (Evidence 3) |
| 29  min | **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 tickets  Math 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. |