East Wake Middle School Daily Lesson Plan

Teacher: Hall

Lesson Date: April 23rd - April 27th

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 understand that volume can be determined using packing cubes or a formula.  **Tuesday:** Students will find volume using packing cubes or a formula  **Wednesday:** Students will find the volume of right rectangular prisms with fractional edge lengths by packing it with unit cubes.  **Thursday:** Students will complete the Quiz on volume  **Friday:** Students will find the surface area of Rectangular & Triangular Prisms & Pyramids |
| **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”  [Quarter 4 Week 1](https://drive.google.com/open?id=1rgR2iN24rDWnkkdX_XlaGLEl4nY8Cv44)  [Unit 12 Vocabulary](https://drive.google.com/open?id=0B68Rhu0F2PwtU2MtZ0p5Wlg1Z1U) | 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.)* | Ask students if they have any questions from the video they watched (Unit 12 Video 1)  TW explain today they will be working with finding the volume of different figures.  TW give students pop-cubes and allow them to build different size rectangular prisms.  TW ask students if they can find the volume of their prism and have students explain what they did to find the volume of their particular prism.  TW remind students that they worked with volume during 5th grade and ask students if they remember the formula for finding volume. V=LWH  TW then explain the another formula for volume is V=BH. You are just multiplying the area of the base (length and width) by the height.  TW explain that a unit cube is a cube with a side length of one unit.  Note: Students filled multiple shapes with unit cubes in 5th grade to determine volume. Students have had practice with this. | 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 2 Notes](https://drive.google.com/open?id=1F-sv_-6wGMg09z2AntZxpTmXQ2I4362K)  TW then explain that for the next activity students will be comparing the volume of 2 different prisms using the same size paper. Teacher will model HOW to create a rectangular prism from the sheets of paper.  TW pass out the “Popcorn Prism Sheet” to students.  [Popcorn Prism Sheet](https://drive.google.com/open?id=0B68Rhu0F2PwtTUxIR2RIZnBIYXc)  [Popcorn Prism Answer Key](https://drive.google.com/open?id=0B68Rhu0F2PwtLUFaZnF2NjZ3dFk)    **2nd Model:** TW go over the expectations and describe the steps that students will complete with their partner. | TW pass out the pop-cubes for students to use during the following problem.  TW ask them to build a rectangular prism with dimensions of 3/2, 5/2, and 5/2.  TW give them some time to build and then ask what they think the denominator is representing? (Each of the cubic units in the model is 1/2 in. on each side).  See model below:    TW display the model above and ask the following question:  What is the volume of one of the smaller cubes?  TW give students time to work with their table groups to figure it out using the dimensions from the model.  TW discuss as a class and model how to illustrate 3/2 • 5/2 • 5/2 = (3•5•5) • 1/8  Students should reason that a small cube has volume of 1/8 in3 because 8 of them fit in a unit cube.  TW display the following problem and again model how to solve making sure to think aloud.  [Fractional Word Problem](https://drive.google.com/open?id=0B68Rhu0F2PwtaDAwRm9BMmF1NUk) | TW read the directions as a whole group for the Volume Quiz.  TW review expectations for taking the math assessment.  (About 5 minutes) | TW begin the lesson by having students complete the first column “What I think the Word Means” of “Surface Area and Nets Vocabulary.  [Surface Area and Nets Vocabulary](https://drive.google.com/open?id=0B68Rhu0F2PwtN0RFUkNTMzJPVTg)  Once students have had a few moments to complete the first column, the teacher will have students share out loud and then clarify any misconceptions by completing “What the Word Means” in a whole class discussion.  TW then review with students nets of 3-D figures using the following website:  <http://www.bbc.co.uk/schools/ks3bitesize/maths/shape_space/3d_shapes/revise3.shtml>  TW lead a discussion for what polygons are seen in each figure, how many of each are seen, and how would knowing this information and the area formula for each polygon identified assist in determining the surface area for the figure.  TW review the definition for a net: a two-dimensional representation of a three-dimensional figure. (See teacher notes below)  TW then continue the discussion with surface area. Surface area is equal to the sum of the area of each of the faces.  TW display “Surface Area of Rectangular & Triangular Prisms & Pyramids” and model how to find the surface area of A & B    [Surface Area of Rectangular & Triangular Prisms & Pyramids](https://drive.google.com/open?id=0B68Rhu0F2PwtQlIxOTc3R1dRMTQ) |
| 25 min | **Empower**  **Group Activity//Small Group Instruction:** (teacher-facilitated group discussion, student learning team activity, re-teaching or intervention) | TW then display “Finding Missing Dimensions if given volume (also a review of 5th grade material).  [Finding Missing Dimensions if given Volume](https://drive.google.com/open?id=0B68Rhu0F2PwtckNhbGdlakRJblU)  SW work through the slide, making sure to write down examples in their notes.  SW work with their table group to solve the two problems at the end of the slide. | TW explain that for this activity students will be comparing the volume of 2 different prisms using the same size paper. Teacher will model HOW to create a rectangular prism from the sheets of paper.  TW pass out the “Popcorn Prism Sheet” to students.  [Popcorn Prism Sheet](https://drive.google.com/open?id=0B68Rhu0F2PwtTUxIR2RIZnBIYXc)  [Popcorn Prism Answer Key](https://drive.google.com/open?id=0B68Rhu0F2PwtLUFaZnF2NjZ3dFk)    **2nd Model:** TW go over the expectations and describe the steps that students will complete with their partner. | SW work with a partner to complete 3 additional fractional volume word problems.  [Fractional Volume Word Problems Part](https://drive.google.com/open?id=0B68Rhu0F2PwtcFpjdTlIb25Hcnc)  If Time Permits:  SW complete “Fractional Volume Exit Ticket”    [Fractional Volume Exit Ticket](https://drive.google.com/open?id=0B68Rhu0F2PwtcXNfWU5FNmJza1U)    [Exit Ticket Answer Key](https://drive.google.com/open?id=0B68Rhu0F2PwtTzJHTUlrZ0I3VU0) | SW discuss in their table groups expectations for taking the quiz in the classroom.  TW have various student leaders share out.  (About 5- 7 minutes) | SW work in table groups to find the surface area of C & D.  TW select student leaders to come up to the board and share/model how they solved. |
| 10 min | **Independent Practice**: *(individual practice, discussion,)* | SW independently complete “Calculating Volume 2” and turn in when complete.  [Calculating Volume Independent Practice](https://drive.google.com/open?id=0B68Rhu0F2PwtdUNXa05fQV9nazg)  **Homework:** SW need to watch Unit 12, Video 2 and complete the homework portion of their notes.    [Unit 12 Video 2](http://bit.ly/2m4MQ7z)  [Unit 12 Video 2 Notes](https://drive.google.com/open?id=1F-sv_-6wGMg09z2AntZxpTmXQ2I4362K) | SW independently complete “Practice with Volume of Prisms & Composite Shapes”  [Practice with Volume](https://drive.google.com/open?id=0B68Rhu0F2PwtZUlHeFduaUYxN0E)  **Homework:** SW need to watch Unit 12, Video 3 and complete the homework portion of their notes.  [Unit 12 Video 3 Notes](https://drive.google.com/open?id=16X6NMf1ij3c5Z2OiwqAPZ-dzVqigiJWt)  [Unit 12 Video 3](https://www.youtube.com/watch?v=YOQH7065fps) | SW independently complete Evidence 1 on Mastery Connect.  [https://student.masteryconnect.com](https://student.masteryconnect.com/)  **Homework:** SW need to watch Unit 12, Video 4 and complete the homework portion of their notes.  [Unit 12 Video 4 Notes](https://drive.google.com/open?id=1ic5bn4t7p6WM_FfPN_xhEb8fWSexLzwV)  [Unit 12 Video 4](https://www.youtube.com/watch?v=sXdDzalGI5o) | SW complete the math quiz using their notes.  Early Finishers will log onto Khan Academy to complete any missing assignments    **Homework:** SW need to watch Unit 12, Video 5 and complete the homework portion of their notes.  [Unit 12 Video 5](https://www.youtube.com/watch?v=CLUQtAzjv0o)  [Unit 12 Video 5 Notes](https://drive.google.com/open?id=1H6qbYl605VgnCam4ChEPb85jt__Z5LPV) | Students will independently complete E & F and turn into the teacher.  **Homework:** SW need to watch Unit 12, Video 6 and complete the homework portion of their notes.  [Unit 12 Video 6 Notes](https://drive.google.com/open?id=1UIax1ZnRn80YoulYDKKIvOcy4DPW8HUf)  [Unit 12 Video 6](https://www.schooltube.com/video/8d357c8e6b4a45488f11/Unit%206%20Module%2015.1%20video%20notes) |
| 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* | Calculating Volume 2 | Practice with Volume of Prisms & Composite Shapes | Evidence 1 on Mastery Connect | Quiz on Volume | Surface Area of Rectangular & Triangular Prisms & Pyramids problems E & F |
| 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. |