

DAY and TOPIC		WHAT	HOW
		11:10 What is Geometry? Discussion	Create poster of class ideas on butcher paper about what they think Geometry is, include actual definition at end.
	Afternoon	12:30 Vocabulary Worksheet 12:45 Protractor Basics Discussion 1:15 Protractor Practice 1:30 Break 1:45 Protractor Practice (cont'd) 1:55 Pipe Cleaner Angles Activity HW: Graph Paper Names, Read Wright 3	Fill in the worksheet as a class, go over key definitions. Have sts act out any terms they can. How to use a protractor and how to measure and draw angles. Use transparency machine to provide demonstration. Protractor Practice Worksheet In pairs, students make a set of specified angles out of pipe cleaners, taped to construction paper. Use protractors to ensure accuracy. Label angles and state examples of each angle that may be found in real life. Sts write and color their names on graph paper using a straightedge and compass. Pages 1-25 of W3.

DAY and TOPIC		WHAT	HOW
<p data-bbox="201 384 401 741">Day 2 The Language of Geometry (Continued) And “How to Use a Compass without Hurting Yourself”</p> <p data-bbox="188 783 414 1104">TOPICS OF THE DAY- Vocab: plane, space, dimensions, circles Using a Compass to draw and measure</p>	<p data-bbox="448 384 565 415">Morning</p>	<p data-bbox="597 384 857 558">9:00 Spotcheck HW, discuss W3 reading, share a few pipecleaner examples</p> <p data-bbox="597 636 829 741">9:15 Measure the Angles of Your Name</p> <p data-bbox="597 930 786 1035">9:30 What is a Compass? Discussion</p> <p data-bbox="597 1150 862 1213">10:00 Spatial Sense Discussion and WS</p> <p data-bbox="597 1297 760 1329">10:15 Break</p> <p data-bbox="597 1371 808 1434">10:30 Go Over Dimensions WS</p> <p data-bbox="597 1549 857 1654">10: 45 Introduction to the Ruins of Montarek</p>	<p data-bbox="894 636 1490 888">Sts measure the angles in their names from the HW assignment. Point out interior versus exterior angles. Measure angles formed with tangent lines if straight segments connect with curves. Summarize findings and classify angles: how many angles in name? How many are acute, right, and obtuse?</p> <p data-bbox="894 930 1463 1077">History and best practices using a compass. Practice drawing a few circles and using the compass to measure. Focus on proper technique.</p> <p data-bbox="894 1150 1474 1255">Vocab: plane, space, dimension. Discuss the 3 main ideas which determine dimension. “What Dimension?” WS.</p> <p data-bbox="894 1371 1430 1476">Emphasize the progression of dimensions (point to line to plane to solid) and the question of length, width, and height.</p> <p data-bbox="894 1549 1479 1654">Read pg. 7 together as a class to introduce ROM. Then work on various problems using building mats and lego cubes.</p>

DAY and TOPIC		WHAT	HOW
	Afternoon	12:30 The History of the Compass webvideo 12:45 Ruins of Montarek (cont'd) 1:30 Break 1:45 ROM (cont'd) 2:00 Sir Cumference and the Knight of Angleland 2:15 Puzzle HW: ROM and W3	http://brunellesche.imss.fi.it/espora/compasso/dswmedia/storia/estoria2.html Read story as a class to review angles, etc. “Which numbers belong to which numbers?” (spatial sense puzzle WS) #7,8,11,12,13 from ROM. Pgs 25-43 from W3.
Day 3 “What the heck is a perpendicular bisector?” (Constructions) TOPICS OF THE DAY- Vocab: vertical angles, midpoint, congruent, perpendicular bisector, Constructions	Morning	9:00 Correct and Collect ROM HW, recap what’s going on in W3 9:20 Constructions 9:30 Constructions Practice Packet 10:15 Break 10:30 Constructions Packet (cont'd) 11:10 Sudoku	Definition, description. Reading from Geometry2Go resource book pg. 372. Basic Constructions WS. Explain definition of “algorithm”. Do #1-3 together. Work in groups to finish packet. Explain how to play and offer puzzles if students have finished constructions.

DAY and TOPIC		WHAT	HOW
	Afternoon	12:30 Sudoku (cont'd) 12:50 Vertical Angles Discussion 1:30 Break 1:45 Finish up work on Vertical Angles/Play Sudoku 2:15 Intro to Pentominoes ANNOUNCEMENT HW: definitions, construction practice paragraph, and W3	www.jigsawdoku.com Discuss intersecting lines and angles created by the intersection. Focus on congruency of vertical angles- why? How can it be used? Vertical Angles WS Pentominoes- If you had 5 2-D squares, what are the possible configurations? (12) Discuss. Check-up #1 will be on Day 6 List of words from class to write definitions in their own words. Write a paragraph WS on constructions. Pages 44-61 of W3.
Day 4 Exploring “Try”-angles (Triangles) TOPICS OF THE DAY- Properties and types of triangles (acute, obtuse, right, scalene, isosceles, equilateral) Congruent and	Morning	9:00 Collect HW. Review constructions. 9:30 Triangles 9:45 Classifying Triangles 10:15 Break	Discuss construction packet #1 and #3- how could you do it with a ruler instead? (importance of multiple methods approach to math) Make a list of what sts already know about Triangles on board (generate list using a round robin pair-share). Discuss classification by angles and by sides. Combinations of the two that exist or don't exist. Complete the “What Kind of Triangle Is it?” WS in assigned pairs.

DAY and TOPIC		WHAT	HOW
similar triangles Constructing triangles Angles within the Triangle		10:30 Triangles (cont'd)	How to Make an Equilateral Triangle WS (folding technique). Discuss total degrees in a triangle and missing angle examples.
	Afternoon	12:30 Review of Angles/Triangles 12:40 Spaghetti Triangles 1:30 Break 1:45 Triangles (cont'd) HW: Triangle Exploration WS, W3	Sts form various shapes with their bodies as a class—vertical angles, an acute angle, a 100- degree angle. Have sts check each other. In groups, sts make spaghetti triangles out of specified side lengths. Use reasoning to determine a rule for acceptable triangle side lengths. Record results (will need these results for HW). Define diagonals and inscribed shapes. Triangles Everywhere! WS packet (an alternative type of assessment that asks students to use diagonals inside triangles, etc.). Exploring triangles (do they exist or don't they with specified lengths) using data collected from Spaghetti Triangles. Pages 62-75 of W3.
Day 5 Pi Day!!! (Circles) TOPICS OF THE DAY- Review Perimeter and compare to Circumference Circles and their	Morning	9:00 Spotcheck triangle exploration HW. Discuss conclusions with a partner and then as a class. 9:25 Hidden Triangles Puzzle	Show sts a hidden triangle puzzle. Have them create their own. Share with class.

DAY and TOPIC		WHAT	HOW
		<p>Discussion</p> <p>HW: Review Story or Drawing.</p>	<p>Sts either make a one page drawing or story using Vocab of Week 1 to review for the check-up.</p>
<p>Day 6 Greedy Triangles (Polygons)</p> <p>TOPICS OF THE DAY- Polygons (naming, sides, and vertices) Convex vs. nonconvex Constructions of simple polygons Inscribed polygons tangrams</p>	<p>Morning</p>	<p>9:00 Discuss the Deriving π WS from class. Sts volunteer to share their review HW. Collect HW.</p> <p>9:25 Check-up #1</p> <p>10:15 Break</p> <p>10:30 Read the <i>Greedy Triangle</i></p> <p>10:50 Discussion of the Greedy Triangle</p> <p>11:00 Polygons</p> <p>11:15 Greedy Triangle WS</p>	<p>A short assessment/quiz to see how sts are doing with material covering Week 1.</p> <p>By Marilyn Burns. Introduces polygons.</p> <p>Groups of 4 are given discussion questions on slips of paper about the reading. Report on discussion to class.</p> <p>Fill in Types of Polygons Chart Handout</p> <p>Extension Questions to the Reading (the shapessplitter and shapesshifter).</p>
	<p>Afternoon</p>	<p>12:30 Finish the Greedy Triangle WS</p> <p>12:45 Interior Angles of Polygons</p>	<p>Derive the $180(n-2)$ formula using diagonal dissection examples- Give groups different polygons to divide into smaller triangles to figure out how many degrees are in their polygon, bring together as a class to find the</p>

DAY and TOPIC		WHAT	HOW
		<p>1:30 Break</p> <p>1:45 Penrose pg. 8</p> <p>2:00 Tangrams</p> <p>HW: Tangram set, 5 Point Puzzle WS, read W3</p>	<p>pattern.</p> <p>Mathematical Stars and follow-up questions.</p> <p>Read Penrose pg. 26 and 48. Discuss tangrams and the rules for playing with them. Have sts build their own set from the template. Attempt to form a square. Then more difficult shapes. (cat puzzles, etc.)</p> <p>Have sts make another set of tangrams to bring tomorrow. Puzzle is on WS. Pages 76-86 of W3.</p>
<p>Day 7 “What has four sides, four angles, and is also a polygon?” (Quadrilaterals)</p> <p>TOPICS OF THE DAY- Trapezoids, parallelogram, square, rhombus, rectangles, and kites pentominoes</p>	<p>Morning</p>	<p>9:00 Discuss and check 5-pt puzzle WS. Discuss answers. Review polygons.</p> <p>9:20 Tangrams (cont'd)</p> <p>9:40 Regular Polygons and Convex Polygons</p> <p>9: 55 Crazy Polygons Activity</p> <p>10:15 Break</p>	<p>(5-pt Puzzle: Draw 5 dots so that no three are in a straight line. How many ways are there of joining pairs of dots? (10) If you draw all the ways on one diagram, what polygons do you get? (2 pentagons, 5-pointed star, 5 quads, 10 triangles)</p> <p>Sts. Attempt some of the more difficult shapes- like animals, the running girl, etc.</p> <p>Draw examples on the board of a regular pentagon and an irregular one. Have sts figure out what it means to be regular for a polygon. Same thing with convex or nonconvex. Lots of visual examples on board.</p> <p>Students use rulers and protractors to draw more difficult polygons.</p>

DAY and TOPIC		WHAT	HOW
		<p>10:30 Crazy Polygons (cont'd)</p> <p>10:50 Polygon Pattern Activity</p> <p>11:10 Polygon Pattern Activity Part 2</p> <p>11:05</p> <p>11:10 Rogie the Rhombus story</p>	<p>Sts who finish early try making the configurations of 6 cube pentominoes.</p> <p>Pair students up to make a pattern/design using up to 20 polygon sticker shapes. Use manila folders and have partners use the inside.</p> <p>Team up pairs with other pairs (groups of 4). Without showing them their design, they have to describe it using proper terminology and the other pair has to try to recreate it. Then switch.</p> <p>Read the Rogie story.</p>
	Afternoon	<p>12:30 Quadrilaterals</p> <p>12:35 Read Rogie the Rhombus story</p> <p>12:55 Quadrilateral Properties WS</p> <p>1:00 Quadrilateral Group Activity</p> <p>1:30 Break</p> <p>1:45 Quad Group Activity Presentations</p> <p>2:10 Corrections to</p>	<p>Review the definition of a quadrilateral.</p> <p>Have sts attempt to fill out the chart on properties of quads while listening.</p> <p>Go over/Fill in chart that clarifies the types of quadrilaterals and their characteristics.</p> <p>Groups work on a given quadrilateral to examine its properties and look at its diagonals.</p> <p>Each group presents its finding about their particular quadrilateral. Students take notes into their packets based on the presentations.</p>

DAY and TOPIC		WHAT	HOW
		Check-up #1 HW: Diamond Puzzle, Inscribed Polygons WS, Read W3.	Pgs. 87-96 of W3.
Day 8 “What’s your Area?” (Area of 2-D figures) TOPICS OF THE DAY- Finding the area of circles, triangles, and polygons	Morning	9:00 Correct and Collect Inscribed Polygons WS. Students must present the diamond puzzle to Teacher/PA. 9:20 Recap- What shapes have we seen so far? What’s going on in W3? 9:35 Perimeter and Area Discussion 9:50 Area WS 10:15 Break 10:30 Area (cont’d)	Students can work on Sudoku while they wait their turn to show they can do the puzzle (performance assessment). Discuss perimeter for basic shapes. Then move to discussion of perimeter, leading to discussion of circumference of a circle. Show formula. Discuss using formulas. What is Area? Why is it important? Examples of its use in the real world. “What’s your Area?” WS (rectangle, right triangle, parallelogram). Focuses on the relationship between the shapes to derive area formulas. Also uses square counting techniques. Of any triangle and of circles. Discuss the meaning of h in the triangle formula in different types of triangles. Investigation to derive the area formula of a circle using

DAY and TOPIC		WHAT	HOW
			paperfolding and the formula for a parallelogram.
	Afternoon	<p>12:30 Perimeter of Polygons/ Area of Polygons</p> <p>12:55 Math Scene Investigation WS</p> <p>1:30 Break</p> <p>1:45 My Secret Garden Activity Part I</p> <p>2:00 Corrections to Check-up #1 (cont'd)</p> <p>ANNOUNCEMENT</p> <p>HW: GEOMY WS, Polygon Area WS, Read W3</p>	<p>Relate to perimeter of a circle. Discuss the apothem for area. Look over Reference Handout on all area formulas.</p> <p>Sts work to find the formula for the area of a circle from the area of a parallelogram by a folding/cutting technique.</p> <p>Sts. design a geometrical garden plan with given guidelines. Draw using ruler, protractor, and compass. Color design if time permits.</p> <p>Check-up #2 is on Day 10!</p> <p>Fill in GEOMY cards for tomorrow.</p> <p>Pages 97-116 of W3.</p>
<p>Day 9 Taking it to the Next Dimension (3-D figures)</p> <p>TOPICS OF THE DAY- Polyhedral nets</p>	Morning	<p>9:00 Correct the Polygon Area WS, discuss common errors. Spotcheck GEOMY sheets are completed. Recap area of 2-D shapes. Recap W3 reading.</p>	<p>Have each kid turn to their right- 1 minute each to talk about W3.</p>

DAY and TOPIC		WHAT	HOW
Spheres, cubes, cones, cylinders, prisms, and pyramids Faces, edges, and vertices		<p>9:25 Review Activity</p> <p>9: 45 Space Figures (3-D Shapes)</p> <p>10:05 Cylinders, Cones, Pyramids, Prisms</p> <p>10:15 Break</p> <p>10:30 Shapes (cont'd)</p>	<p>Geometry Matching Board to review the shapes.</p> <p>Build a cube using its polyhedral net. Use the cube to discuss vocab (face, edge, vertex, polyhedra, polyhedral nets).</p> <p>Space Figures Reference Handout. Present real-life examples of each of these shapes. Build at least 2 pyramids and at least 2 prisms. Make observations about their properties (think/pair/share).</p> <p>Keep working on building shapes and observations.</p>
	Afternoon	<p>12:30 Read Sir Cumference and the Sword in the Cone (Part I)</p> <p>12:40 Penrose Reading</p> <p>1:30 Break</p> <p>1:45 Read Sir Cumference and the Cone (Part II)</p>	<p>Give out copy of the puzzle page of the book for sts to look over.</p> <p>Pg. 28 reading and pg. 31 table to fill out from Penrose book. Build a dodecahedron and an icosahedron from their polyhedral nets.</p>

DAY and TOPIC		WHAT	HOW
		2:15 Discuss Euler's Law HW: Folding Cubes WS, Euler's Law WS, W3	Review what the point was in the story and go over Euler's Law. Verify the law with some of the shapes sts build earlier. Pages 117-127 of W3.
Day 10 Exploring the Third Dimension (3-D figures continued)	Morning	9:00 Spotcheck then go over Folding Cubes and Euler's WS. Review 3-D figures. 9:30 Review Activity 10:15 Break 10:30 Tessellations 10:50 Tessellations Activities	Sts use toothpicks and modeling clay to build any 3-D figure (toothpicks are the edges, clay will be rolled into vertices). Introduction to Tessellations using website http://library.thinkquest.org/16661/index.html and examples of M.C. Escher art. Types of tessellations, which shapes can tessellate, etc. Discussion. Read Penrose pg. 74-77. Sts work on tessellation index card activity on pg. 77.
	Afternoon	12:30 My Secret Garden Part II (cont'd) 1:30 Break 1:45 Secret Garden (cont'd)	Sts continue work on their garden design, focusing on calculations of perimeter and area.

DAY and TOPIC		WHAT	HOW
		2:00 Play GEOMY HW: Tessellation Coloring WS, Elephant Puzzle, and Study for Check-up #2	Play GEOMY (like Bingo) to review for upcoming check-up. Sts color 3 examples of tessellations. Discuss what types of tessellations they are.
Day 11 “What shape would you want your ice cream cone to be?” (Surface Area, Area, and Volume of 3-D figures) TOPICS OF THE DAY- Surface area vs. area Surface area and volume of a cone, prism, cylinder, and pyramid	Morning	9:00 Collect and share Tessellation HW, Elephant Puzzles. 9:15 Check-up #2 10:00 Slicing Puzzles and Toothpick Puzzles 10:15 Break 10:30 Puzzles (cont’d) 10:55 Isometric Dot Paper and Perspective Discussion and WS	A short assessment/quiz to see how sts are doing with material covering Week 2. When students finish, they can go on to the Slicing Puzzles WS. As sts finish quiz, they begin considering these puzzles. Sts allowed to work in groups and actually use manipulatives to try puzzles. Discuss. Worksheet of isometric drawings examples. Discuss how it works, how it compares to base outlines and building plans discussed on Day 2.
	Afternoon	12:30 3-D Figures: Surface Area	Discuss Surface Area. Focus on the surface area of a prism (specific example of a triangular prism) and of a cylinder using their

DAY and TOPIC		WHAT	HOW
		<p>12:50 3-D Figures: Volume</p> <p>1:30 Break</p> <p>1:45 Practice using Surface Area Formulas</p> <p>HW: Volume problem from ROM, finish Surface Area WS, Isometric Dot Drawing of Name, Read W3</p>	<p>polyhedral nets. Extension: What about a rectangular prism's surface area?</p> <p>Discuss volume. Focus on cylinder (what would the volume depend on?). Show volume formula and how to make it specific to a cylinder. Discuss what would hold more volume- a taller cylinder or a wider one? Reference sheet handout of volume formulas. Have sts highlight the most important formulas. Sts then complete practice WS's on surface area and volume.</p> <p>Surface Area practice discussion and WS.</p> <p>Pg. 60 volume question. Sts draw their first name and make it 3-D using isometric dot paper(hand out example with blank sheet). Color name when finished. Pages 128-145 of W3.</p>
<p>Day 12 (Time for the sts to breathe- Work Day/ Project Day)</p> <p>TOPICS OF THE DAY- Volume (cont'd)</p>	<p>Morning</p>	<p>9:00 Check and correct SA WS, Discuss ROM problem. Recap what's going on in W3.</p> <p>9:25 Practice Volume calculations</p>	<p>Emphasis on different strategies for the volume problem. Review the difference between area and formula (especially the 2-D and 3-D connections).</p> <p>Volume WS. Go over a few examples together. Sts can work in partners.</p>

DAY and TOPIC		WHAT	HOW
		<p>10:00 Demo</p> <p>10:15 Break</p> <p>10:30 Filling and Wrapping Activities</p> <p>11:00 F&W Activities (cont'd)</p> <p>11:15 Introduce the Planet X Final Project</p>	<p>Discuss cones. Demonstration of filling up a cone and pouring it into a cylinder (use rice). How many times does it take? What would that mean for its volume formula?</p> <p>Read opening intro of text to establish context of problem solving. Begin with the Smart Consumer WS. Sts must present findings to instructor for approval.</p> <p>Sts continue working on various scenario-based problems from F&W packet.</p> <p>Put sts in groups for this project. Discuss guidelines and expectations. Sts begin discussing plans among their group.</p>
	Afternoon	<p>12:30 F&W Activities (cont'd)</p> <p>12:50 Work on Planet X Project</p> <p>1:30 Break</p> <p>1:45 Pentomino Puzzles</p>	<p>Plans must be to scale and make sense for a city. Once the plan is completed, sts start building nets to represent their buildings in the 3-D form of their planet. Sts should split up the work.</p> <p>Sts have already considered various configurations. Now using manipulatives of the configurations, sts try to put together basic shapes such as a rectangle. Set-up various pentominoe challenges around the room and have sts attempt each (use a rotating approach, each st gets a set amount of time to attempt the puzzle, then when time is called</p>

DAY and TOPIC		WHAT	HOW
		<p>2:05 The Straw Structure Challenge</p> <p>2:25 Final Structures are compared</p> <p>HW: F&W packet, Read W3</p>	<p>they move to the next)</p> <p>Pairs of sts are given 10 paperclips and 20 straws to create a straw structure. They have two goals: (1) to make the tallest structure they can and (2) to make it stable. For the first 5 minutes, the teams must ONLY talk about possible approaches. After they can build. They cannot not use any additional materials but they can cut/bend/twist the straws and clips if they want. They have only 20 minutes.</p> <p>Teacher and P.A. judge/critique structures based on the two goals.</p> <p>All F&W sheets must be completed, in addition #16 on pg. 34 should be done. Pages 145-175 of W3.</p>
<p>Day 13 “Symmetry makes me Happy” And To look into the Mathematical Mirror (Symmetry and Reflections)</p> <p>TOPICS OF THE DAY- Symmetry Reflections Transformations</p>	<p>Morning</p>	<p>9:00 F&W packets are collected.</p> <p>9:15 Similarity Discussion</p> <p>9:30 Symmetry Discussion</p> <p>9:40 Symmetry Activity</p> <p>10:00 Symmetrical Drawings</p> <p>10:15 Break</p> <p>10:30 Examples of</p>	<p>Discuss what it means to be similar in geometry. Include congruent and equal. Examples of similar triangles.</p> <p>What is symmetry? What types of symmetry exist? (point, line, and rotational symmetry) What kind of symmetry do many animals have?</p> <p>Students determine which letters of the alphabet have which kind of symmetry.</p> <p>Sts create three drawings and/or designs that have the three different types of symmetry.</p> <p>Sts look at examples of art with symmetry. In</p>

DAY and TOPIC		WHAT	HOW
		<p>Symmetry in Art</p> <p>10:45 ROM Symmetry</p> <p>11:05 Transformations and Isometry Discussion</p> <p>11:20 Pentominoes</p>	<p>particular, use the Robie House art glass example from the W3.</p> <p>Complete pg. 49 in ROM.</p> <p>What are transformations? Discuss Translations using demo shape taped to board. What directions can a figure move in? Discuss isometry (handout of examples with questions for thought).</p> <p>If you had 6 2-D cubes, what are all the possible configurations? (give sts graph paper to organize themselves)</p>
	Afternoon	<p>12:30 Symmetry Activity</p> <p>1:30 Break</p> <p>1:45 Translations Activity</p> <p>2:00 Planet X (cont'd)</p>	<p>Sts will create a geometrical, symmetrical art glass window like those in the W3. They will start with a white drawing paper (rectangular shaped) which they will fold in half. They will draw some shapes, etc. on one side, then use a Sharpie to trace it. Next, they will fold it and trace it to the other side. They then will flip their pages over and trace it on the same side as the original drawing. Now they have their window. They will tape this to a black construction paper, cut out the shapes of their pattern page. Then they will cover it with colored tissue paper.</p> <p>Sts draw a figure, then practice translating it. Have students use graph paper and show a vertical shift of 10 units downward and a horizontal shift of 5 units right.</p>

DAY and TOPIC		WHAT	HOW
		HW: Polygon Symmetry, Read W3	Given a WS of polygons, sts identify what types of symmetry they have. Pages 175-215 of W3.
Day 14 Putting it All Together (Review Day/Work Day)	Morning	9:00 Check and correct the polygon symmetry WS. 9:15 Planet X (cont'd) 9:45 Fibonnaci Numbers and the Golden Rectangle 10:15 Break 10:30 Planet X/ Secret Garden	Read pg. 119 of W3 together again. Then Read pg. 23 of Penrose. Complete activity in Penrose. Look at an example of a golden rectangle and see if it is more pleasing. Sts work on either project. Secret Gardens due by end of the day.
	Afternoon	12:30 Planet X (cont'd) 1:30 Break 1:45 Planet X or Secret Garden (if not finished) (cont'd) HW: Pentominoe Configurations, Read the W3	How many possible configurations can you think of for 7 2-D cubes? Pages 215-235 of W3.
Day 15 Parting is Such Sweet Sorrow...	Morning	9:00 Collect HW. Recap content. 9:15 Presentations Planning	Sts sign-up to present various topics to the parents from the class: tessellations, pi, tangrams, pentominoes, etc. Sts review their

DAY and TOPIC		WHAT	HOW
		10:15 Break 10:30 Post-assessment 11:15 Name Tags	assigned topic notes, etc. and develop a plan about what they will present. Sts will construct name tags for their parents. They will either use an isometric perspective or labeled angles.
	Afternoon	12:30 Planet X 1:15 Parents arrive for Presentations 2:00 Closing Ceremony!!!	Finish work and present plans to teacher. Groups take turns walking around and looking at one another's Planet X cities. Sts will present to the parents. Afterwards, they will construct a polyhedral net with their parents, explaining to them the vocabulary and the concept.