LAQUEISHIA S. WHITE

Math Graphing Construction & Analysis

RESOURCES

The Louisiana Comprehensive Curriculum

http://nces.ed.gov/nceskids/createagraph/

http://studyjams.scholastic.com/studyjams/jams/math/data-analysis/bar-graphs.htm

http://www.primaryresources.co.uk/maths/mathsF1.htm

http://www.bbc.co.uk/education/mathsfile/shockwave/games/datapick.html

http://www.scienceacademy.com/BI/

http://pbskids.org/cyberchase/games/bargraphs/bargraphs.html

http://www.softschools.com/math/data_analysis/bar_graph/activities/favourite_colors_bar_chart/

http://www.brainpopjr.com/math/data/tallychartsandbargraphs/picturemaker/

ATTACHMENTS

Artifact 1- Unit 1 Resources and Supplements

Artifact 2- Graph of the Day Implementation Plan

Artifact 3- Handout (Project Description)

Artifact 4- Student Product Example

Artifact 5- Student Directions Power Point

Artifact 6- Self Assessment

Guiding Questions

1. Can students use different strategies to solve two factor sorts and represent objects in Venn diagrams?
2. Can students use different strategies to collect, organize and represent data?
3. Can students represent and solve problems using data from a variety of sources?
4. Can students communicate about chance situations?
5. Can students identify and use odd-even in solving real life problems using patterns?
6. Can students use different strategies to state simple growth and change rules to describe and extend patterns?
7. Can students use data and patterns in solving age-appropriate problems?

Unit 1 Grade-Level Expectations (GLEs and TEK Equivalent)

Activity #	Related TEK	GLE #	GLE Text and Benchmarks
		Number and Number Relations	
5,6	3.3a/b	8	Recognize, select, connect, and use operations, operational words, and symbols (i.e., +,-,x, ÷) to solve real-life situations (N-5-E) (N-6-E) (N-9-E)
		Algebra	
Today's #	3.4a-c	14	Use the symbols <, >, and ≠ to express inequalities (A-1-E)
Today's #	3.4a-c	16	Use number sentences to represent real-life problems involving multiplication and division (A-1-E) (N-4-E)
		Data	
1,2,3	3.14a/b	39	Identify categories and sort objects based on qualitative (categorical) and quantitative (numerical) characteristics (D-1-E)
1,2,3	3.14a/b	40	Read, describe, and organize a two-circle Venn diagram (D-1-E) (D-2-E)
4,13,12	3.14a/b	42	Match a data set to a graph, table, or chart, and vice versa (D-2-E)
4,13,5,6	3.14a/b	43	Represent and solve problems using data from a variety of sources (e.g., tables, graphs, maps, advertisements) (D-3-E)
7,8,9	3.14c	44	Discuss chance situations in terms of *certain/impossible* and *equally likely* (D-5-E)
8,9	3.13c	45	Use manipulatives to discuss the probability of an event (e.g., number cubes, spinners to determine what is most likely or least likely) (D-5-E)
		Patterns, Relations, and Functions	
10,11	3.6a	46	Identify and model even and odd numbers with objects, pictures, and words (P-1-E)
12	3.6a	47	Find patterns to complete tables, state the rule governing the shift between successive terms, and continue the pattern (including growing patterns) (P-1-E) (P-2-E)

Please see the Louisiana Comprehensive Curriculum for detailed activities.

Activity #	*Content*	*GLE/TEK*	*Process*	*Assessment*
Today's #	***Number and number relations***	**14, 16 3.1a-3.4c**	***Goal-TSW analyze the properties of the number of the day daily.*** TTW introduce the students to the classroom website as well as modeling how to navigate the site and log in procedures. TTW model how to make recordings using vocaroo.com website and attach recording to a picture using PowerPoint. TTW allow students opportunities to model their understanding of this procedure for the whole group. TTW Model procedures for saving student work into electronic folders. (First Week) TLW analyze today's number and document the number's properties in their learning log. TLW discuss their findings with their small group (a group will be designated daily to do so) and document this information using clear mathematical vocabulary. Students will choose to either take a picture of their learning log and record their discoveries about today's number using www.vocaroo.com, or type their observations into Microsoft Word.	TLW save their work into designated folders and their work will be reviewed by the teacher. A class Number Wiz will be designated at the beginning of each day. They will be responsible for recording the vocaroo.com for that day's number. TT&S will review recordings as a closure activity daily. TSW give a thumbs up or thumbs down of whether or not the Number Wiz analyzed their numbers correctly.
1-3	***Two-Circle Venn Attributes***	**39,40 3.14a/b**	**Additional tools to teach process:** Why use Venn Diagrams http://passyworldofict.blogspot.com/2011/03/real-venn-diagrams.html Venn diagram-w/application http://www.ngfl-cymru.org.uk/vtc/ngfl/maths/dinas_powys_sian_mansfield/venn_1.htm **Venn Diagram 2** http://www.ngfl-cymru.org.uk/vtc/ngfl/maths/dinas_powys_sian_mansfield/venn_2.htm **Venn diagram 3** http://www.echalk.co.uk/Maths/vennDiagram/venn.html **Smart Board Lesson Examples- Venn Diagrams** http://www.primaryresources.co.uk/maths/mathsF1b.htm	
4/13	**Charts/ Graphs**	**42/43 3.14a/b**	**Goal: TLW collect data and use this data to create charts and graphs. TLW analyze student created charts and graphs then generate questions for the given data.**	Data analysis appears to be an area of weakness on our iLEAP Assessments. A relative

			TLW use http://nces.ed.gov/nceskids/createagraph/ to create graphs with data they collect by surveying peers, faculty, and family. TLW insert graphs into Microsoft Word and generate and questions for peers to answer as well as answer questions that peers create. **Additional tools to teach process:** http://www.primaryresources.co.uk/maths/mathsF1c.htm#bar Tutorial http://studyjams.scholastic.com/studyjams/jams/math/data-analysis/pictograph.htm Remedial step by step http://www.mathsisfun.com/data/pictographs.html Games – Low-http://www.softschools.com/math/data_analysis/pictograph/games/ High-http://www.ixl.com/math/grade-3/pictographs (Timed and also gives key for full sized and half sized pictures) Medium/high-(s) can also use this site to create pictographs as well from the data given ☺ Gives tally chart and students complete pictograph (more application and HOT) **Additional tools to teach process:** **Smart Board examples- graphs** http://www.primaryresources.co.uk/maths/mathsF1.htm http://studyjams.scholastic.com/studyjams/jams/math/data-analysis/bar-graphs.htm **Creating a Tally Chart for data given** http://www.bbc.co.uk/education/mathsfile/shockwave/games/datapick.html **Answering questions from a given graph** http://www.scienceacademy.com/BI/ **Interactive game creating graph, then answer related questions while multiple graphs are displayed** http://pbskids.org/cyberchase/games/bargraphs/bargraphs.html **Multiple Choice Bar Graph** http://www.softschools.com/math/data_analysis/bar_graph/activities/favourite_colors_bar_chart/	advantage of using this procedure within a data analysis lesson would be to promote social interaction amongst the students. It allows for exploration and presentation of student generated data where the students take ownership of the product. Also, it gives the students opportunities to apply math knowledge and skills in meaningful texts.

			Struggling Learners- Making Charts and graphs based on given data http://www.brainpopjr.com/math/data/tallychartsandbargraphs/picturemaker/	
5-6	**Construct/ Solve Problems from a Chart or Table**	**8/43** **3.3a/b**	Use LA CC Materials and real life manipulatives and additions (Menus, Brotures, etc). **Additional tools to teach process:** **http://www.caldwellzoo.org/plan_your_visit.htm** http://www.gatorsandfriends.com/admission.php http://www.shreveportbossierfunguide.com/organization.php?id=70	
7-9	**Probability**	**44/45** **3.14c**	**Additional tools to teach process:** **Smart Board examples- probability** http://www.primaryresources.co.uk/maths/mathsF2.htm **Predicting Outcomes** http://studyjams.scholastic.com/studyjams/jams/math/probability/pidentify-outcomes.htm http://studyjams.scholastic.com/studyjams/jams/math/probability/find-probability.htm **Decide the probability (fraction) of selecting given item** http://www.bbc.co.uk/skillswise/numbers/handlingdata/probability/game.shtml	
10-11	**Identify Odd/Even Numbers**	**46**	**Additional tools to teach process:** **Odd/Even Story** http://www.primarygames.com/storybooks/even_odd/2.htm **ID Even/Odd Numbers** http://www.bbc.co.uk/schools/starship/maths/games/number_jumbler/small_sound/standard.shtml **Id Even Numbers (distinguish between even/odd)** http://www.ezschool.com/Games/EvenOdd.html	
12	**Numeric Patterns**	**42/47** **3.6a**	**Additional tools to teach process:** **Smart Board examples- patterns** http://www.primaryresources.co.uk/maths/mathsE5.htm	

			What comes next? - Numbers http://www.primarygames.com/patterns/start.htm What comes next? – Pictures http://www.abcya.com/patterns.htm Pattern Memory http://www.coolmath-games.com/0-patternmemory/index.html Pattern problem solving http://pbskids.org/cyberchase/games/data/data.html	