Madison Public Schools

Brown Math Enrichment - The Game of Life

Unit Focus
Sometimes it is a challenge for students to understand how to apply abstract or theoretical math concepts to everyday life. The Game of Life provides students with the opportunity to choose a career and plan a budget around loans, car payments, groceries, cell phone payments, and rent. As they settle into the life they create, they must navigate unexpected events along the way such as home repairs, pay raises, and medical bills. Keeping the budget balanced and the loans paid will make for a very interesting Game of Life.

STAGE 1: DESIRED RESULTS – KEY UNDERSTANDINGS

ESTABLISHED GOALS

Common Core Standards
Mathematics: 6
2000322 Mathematical Practices
• CCSS.MATH.MP.2 Reason abstractly and quantitatively.
• CCSS.MATH.MP.5 Use appropriate tools strategically.
• CCSS.MATH.MP.3 Construct viable arguments and critique the reasoning of others.
• CCSS.MATH.MP.6 Attend to precision.

Student Growth and Development 21st Century Capacities Matrix
Critical Thinking
• Analyzing: Students will be able to examine information/data/evidence to make inferences and identify possible underlying assumptions, patterns, and relationships.
Self-Direction
• Reflection: Students will be able to analyze their performance to evaluate progress toward learning goals in order to determine next step(s).

TRANSFER

T1 make sense of a problem, initiate a plan, execute it, and evaluate the reasonableness of the solution.

T2 use appropriate tools to make reaching solutions more efficient, accessible and accurate.

MEANING

UNDERSTANDINGS	ESSENTIAL QUESTIONS
U1 Mathematicians overcome obstacles by employing strategies and learn from success and failure. U2 Mathematicians analyze change and make predictions in various contexts. U3 Mathematicians identify relevant tools, strategies, relationships, and/or information in order to draw conclusions.	Q1 What math tools/models/strategies can I use to solve the problem? Q2 How do I interpret this mathematical model? Q3 How can I explain this mathematically?

ACQUISITION OF KNOWLEDGE AND SKILL

KNOWLEDGE	SKILLS
K1 Vocabulary: debt, loan, percentage, income, tax rate, interest, budget, salary, utilities, expenses, pie chart, projected, annual	S1 Students will be able to analyze a budget. S2 Students will be able to create a budget given a total amount to be budgeted and percentages for each category. S3 Students will be able to compare a budget to actual spending. S4 Students will be able to find the payments for a loan given loan amount, length of loan and interest. S5 Students will be able to compare two loans. S6 Students will be able to determine total interest paid given the loan amount, length of loan and installment amount. S7 Students will be able to determine rate given the loan amount, length of loan and installment amount. S8 Students will be able to use Microsoft Excel to create a pie chart.