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| Diocese of Wheeling-Charleston | | | | | | |
| CASE Unit Planner | | | | | | |
| Name of Teacher: Denise Basich | | | Grade Level: 4th | | | |
| Subject Area: Math | | | Cross Curricular Opportunities: Language Arts, Character Education, Social Studies | | | |
| Unit Title: Probability and Percentage | | | Estimated Duration of Unit (between 2-9 weeks): 10 days | | | |
| Overview of Unit: Students will understand definition of probability, corresponding fraction to percentage, 0-1 probability, types of occurrences that could be likely-not likely to happen, sale prices and final cost, tithing at 10%. | | | | | | |
| Forms of Text (nonfiction/fiction): Saxon Math 4, internet research | | | Teaching Strategies: modeling, whole group and small group instruction, manipulatives, technology | | | |
| Catholic Identity Connections: Students will write how likely/unlikely it would be for them to break each of the Ten Commandments, probability of attending Mass weekly for a month, probability of doing a community service project in a month. | | | | | | |
| Assessment (authentic/published - summative/formative): Pretest, posttest | | | | | | |
| Standard Number | Standards | Description of Activity | | Resources | | Date of Completion |
|  | Probability | Pretest | | Pretest worksheet | | Day 1 |
|  | Define probability | Teacher led instruction | | Poster with definition | | Day 2 |
|  | Probability is between 0-1, scale | Impossible, unlikely, equally likely, likely, certain to happen scale  Give examples of events for each and have students do the same. | | Worksheet | | Day 3 |
|  | Determining equal parts using spinners | Using different spinners divided equally in different parts, determine fractional parts | | Spinners | | Day 4 |
|  | Correspond fractional part of probability to percentages | Present fractions that equal percentages | | Worksheet for student practice | | Day 5 |
|  | Probability of landing on a particular spinner color if spin “x” amount of times | Giving several different situations pairs of students spin the spinners “X” amount of times to determine probability of certain color coming up. | | Spinners, worksheets | | Day 6 |
|  | Determining probability using number sentence | Explain the fractional part X Number of times we spin the spinner = Probability.  Students do several examples. | | Spinners, Paper | | Day 7 |
|  | Finding 10% (1/10) of a take home pay | Working in small groups students write out paychecks for each other and determine what 10% of take home pay is to donate to the church. | | Pretend paychecks, Paper, Calculators (to double check work.) | | Day 8 |
|  | Determining final sale price using percentages | Created classroom store with items having retail prices and a percentage off will be used. Students will purchase five items each and determine the final price of each item. | | Classroom store items, paper, calculators | | Day 9 |
|  | Probability and Percentages | Students will demonstrate understanding of all probability and percentage concepts taught in this unit by taking post test | | Post test | | Day 10 |
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| Differentiated Instruction Opportunities/Overview: Independent work, small group work, class discussion, work in pairs. Netbooks and spinners will be integrated as well as calculators. | | | | | | |
| Cross Curricular Opportunities level: | | | | | | |
| Standard Number | Standards | Description of Activity | Resources | | Date | |
|  | Definition of probability | Whole group discussion |  | | Day 4 | |
|  | Social Studies world disasters, everyday natural happenings | Social situations and probability of certain occurrences – discussion, paragraph writing | Netbooks, paper | | Day 5 | |
|  | Tithing to the church | Class discussion, figuring 10% of take home pay (using pretend figures) | Pretend paychecks, paper, calculators | | Day 8 | |
|  | Determining sale price | Creating classroom store, determine sale price by using percentages | Items for classroom store, calculators, paper | | Day 9 | |
| **Teaching Strategies Checklist** | | | | | | |
| Writing | | | | | | |
| x | Paragraph | | | | | |
|  | Essay (narratives, fairy tales, realistic fiction) | | | | | |
| x | Summary | | | | | |
| x | Research | | | | | |
|  | Detailed answers (text supported) | | | | | |
|  | Notes (note taking skills, outlines) | | | | | |
| x | Complete sentences | | | | | |
| Reading | | | | | | |
| x | Informational text | | | | | |
|  | Lexile | | | | | |
|  | Complex literature |  |  | |  | |
| x | Speaking | | | | | |
| x | Listening | | | | | |
| x | Varied strategies and instructional methods | | | | | |
| x | Critical thinking in whole class discussion | | | | | |
| x | Student led activities | | | | | |
|  | common core standards (literature circles) | | | | | |
| Technology | | | | | | |
| x | Smart board | | | | | |
| x | Computers | | | | | |
| x | iPads | | | | | |
|  | PowerPoint, Elmo etc. | | | | | |
| Differentiated Instruction | | | | | | |
| x | Used multiple resources | | | | | |
|  | Domain Vocabulary | | | | | |
| x | Cross-Curricular | | | | | |
|  | Collaborative engagement (meaningful feedback) | | | | | |
|  | Higher level learning and teaching | | | | | |
| Assessment | | | | | | |
|  | Project based | | | | | |
| x | Writing prompt | | | | | |
|  | Portfolio | | | | | |
| x | Observation | | | | | |
| x | Quiz | | | | | |
| x | Technology based | | | | | |
| x | Test | | | | | |
|  | Student created test | | | | | |
|  | Presentation | | | | | |
|  | Journal | | | | | |
| x | Think, pair, share | | | | | |
| x | Summary | | | | | |
| x | Oral questioning | | | | | |
|  | Analogy | | | | | |
|  | PowerPoint, or movie maker | | | | | |
| Authenticity | | | | | | |
| x | Various activities | | | | | |
| x | Inquiry, research and evidence | | | | | |
| x | Evidence of time management and planning | | | | | |
| x | Problem solving strategies | | | | | |
| Summary of unit upon completion: | | | | | | |
| During this unit, students will identify probability of events, determine probability using spinners, calculate percentages using real circumstances and pretend paychecks and classroom store. | | | | | | |
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