# LEARNING PLAN

## Exploratory Activities
- Ratey the Math Cat video (1, 3)
- Exploring Rates with Ratey (4, 5, 6, 7, 8)

## Concept Development Activities
- Domino Effect (2, 9, 10, 11) Two color counters will represent the pizza base and rainbow cubes will represent the toppings.
- Towing Service (12)
- Find the Cost (Plumbing) (13)
- Shane's 3D TV (14)
- Valentine's Day - Activities 1-3 (15)

## Extension of Concept Development
- Datelines (16)

## Procedural Knowledge Activities
- Skills & Concepts - 7.7A & 8.8A (17)
- Mini-Assessments 8.8B (18)
- 11.1 Independent Practice (19)
- 11.2 Independent Practice (20)
- Module 11 Mixed Review (21)
- Unit 4 Mixed Review (22)

## Concept
Application of Linear Functions
(Middle School)

## Materials and Resources
1. iPad (or other technology)
2. Graphing calculator
3. Ratey the Math Cat Video
   [https://www.youtube.com/watch?v=tT9A2jlL1s8](https://www.youtube.com/watch?v=tT9A2jlL1s8)
4. Exploring Rates with Ratey (teacher-made)
5. Goldfish crackers
6. Chart Paper
7. Markers
8. Stickers
9. Mathalicious - Domino Effect
10. Double-sided counters
11. Rainbow cubes
12. Towing Service
   [https://lzlomek.files.wordpress.com/2012/08/rule-of-4-for-linear-equations.doc](https://lzlomek.files.wordpress.com/2012/08/rule-of-4-for-linear-equations.doc)
13. Find the Cost (Plumbing) - Region 4 Supporting STAAR Achievement Targeting the TEKS and Readiness Standards, Algebra I (2010)
14. Shane’s 3D TV- Region 4 Supporting STAAR Achievement Targeting the TEKS and Readiness Standards, Algebra I (2010)
15. Valentine’s Day (Part 1) - TEXTREAMS: Algebra 2000 and Beyond
16. Mathalicious - Datelines
17. Skills & Concepts - 7.7A & 8.8A - TEKSing Toward STAAR, 7th grade & 8th grade
18. Mini-Assessments 8.8B - TEKSing Toward STAAR, 8th grade
19. 11.1 Independent Practice - Go Math! 8th Grade
20. 11.2 Independent Practice - Go Math! 8th Grade
21. Module 11 Mixed Review - Go Math! 8th Grade
22. Unit 4 Mixed Review - Go Math! 8th Grade
23. Plumber, Cell Phone, Caricatures at the Fair, and Population (Pinterest activity - [https://lzlomek.files.wordpress.com/2012/08/rule-of-4-for-linear-equations.doc](https://lzlomek.files.wordpress.com/2012/08/rule-of-4-for-linear-equations.doc))
24. Valentine's Day Activity (Part 2) - TEXTREAMS: Algebra 2000 and Beyond

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<table>
<thead>
<tr>
<th>Assessment</th>
<th>Originality and Creativity</th>
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<tbody>
<tr>
<td><strong>Formative:</strong></td>
<td><strong>Student Products</strong></td>
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<tr>
<td>Students will choose one of the following exit tickets to complete: Plumber, Cell Phone, Caricatures at the Fair, Population (23)</td>
<td>Students will create real-world word problems that can be modeled by linear functions. They will solve their word problems using at least 2 methods and provide explanations of their solutions. They will choose one of the following methods to present their work.</td>
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<td><strong>Summative:</strong></td>
<td><strong>Written</strong></td>
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<td>Valentine's Day - Activities 4-6 (24)</td>
<td>Students will create a paper/pencil foldable or other organizer to present their word problem and solutions.</td>
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<tr>
<th>Related TEKS</th>
<th>Oral</th>
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<td>7.7</td>
<td>Students will create a song to present their word problem and solutions.</td>
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<th>8.8.A</th>
<th>Kinesthetic</th>
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<td>Write one-variable equations or inequalities with variables on both sides that represent problems using rational number coefficients and constants.</td>
<td>Students will create a video to present their word problem and solutions.</td>
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<th>8.8.B</th>
<th>Visual</th>
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<td>Write a corresponding real-world problem when given a one-variable equation or inequality with variables on both sides of the equal sign using rational number coefficients and constants.</td>
<td>Students will use a presentation technology such as Prezi to present their word problem and solutions.</td>
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