**Number Rockets Program Logic Model**

**Mission:** Improve Outcomes for First-Grade Students at Risk for Mathematics Difficulty

<table>
<thead>
<tr>
<th>Inputs</th>
<th>Activities</th>
<th>Outcomes</th>
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</table>
| Appropriate students targeted  
- Enrolled in first grade  
- At risk of mathematics difficulty or with known math learning disability | Identify first-grade students to receive tutoring  
- Students with known math learning disability  
- Students identified as at risk for mathematics difficulty | Short Term  
Improvement in mathematics proficiency among students receiving tutoring  
- Mastery of first-grade tutoring program material  
- Improvement in mathematics performance as measured by pre- and post-tests |
| Evidence-based tutoring program  
- Scripted manuals  
- Supporting materials  
- Documented outcomes in RCTs | Recruit and hire tutors | Reduction in prevalence of mathematics learning disability (MLD) among students receiving tutoring |
| Training  
- Comprehensive program content coverage  
- Instruction, modeling, and practice in tutoring process | Order program materials and schedule training | Narrowing of mathematics achievement gap between at risk students and their classmates |
| Ongoing technical support from trainer | Train tutors  
- Cover program details and background  
- Discuss implementation fidelity  
- Model and practice lessons | Long Term  
- Identification of at risk students early rather than “waiting to fail”  
- Reduction in prevalence and severity of mathematics learning disability (MLD) in schools  
- Reduction in strain on schools in providing intensive Tier 3 resources services  
- Reduction in prevalence of “once behind always behind” pattern  
- Prevent consequences associated with functional innumeracy in adulthood, including negative impacts on critical life skills and employment opportunities |
| Trained and supervised tutors | Create tutoring groups and schedules  
- Coordinate tutoring times with teachers  
- Form small groups based on school and tutor schedules | |
| Supportive school environment  
- School or district staff member providing oversight  
- Space and time available for tutoring  
- Supportive teachers and administrators | Provide technical support to tutors as needed to support program implementation | |
| | Assess tutoring outcomes and impact on mathematics performance  
- Assess topic mastery  
- Conduct pre- and post-tests of mathematics proficiency | |
| | Monitor program implementation fidelity  
- Maintain student progress records  
- Complete periodic fidelity checks  
- Provide technical support as needed | |

**Assumptions**
Children with poor quantitative knowledge early in school tend to remain behind throughout school. These students are at risk for long-term math learning disability (MLD), which affects 4-7% of the school-age population.