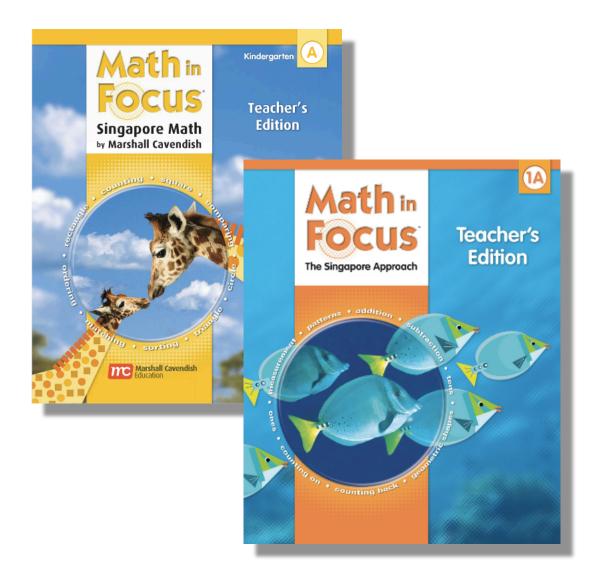
Math Talk to Teach Higher Level Concepts



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How does Storytelling or Word Problems Contribute to the Development of a Mathematically Proficient Student?

Power of Word Problems

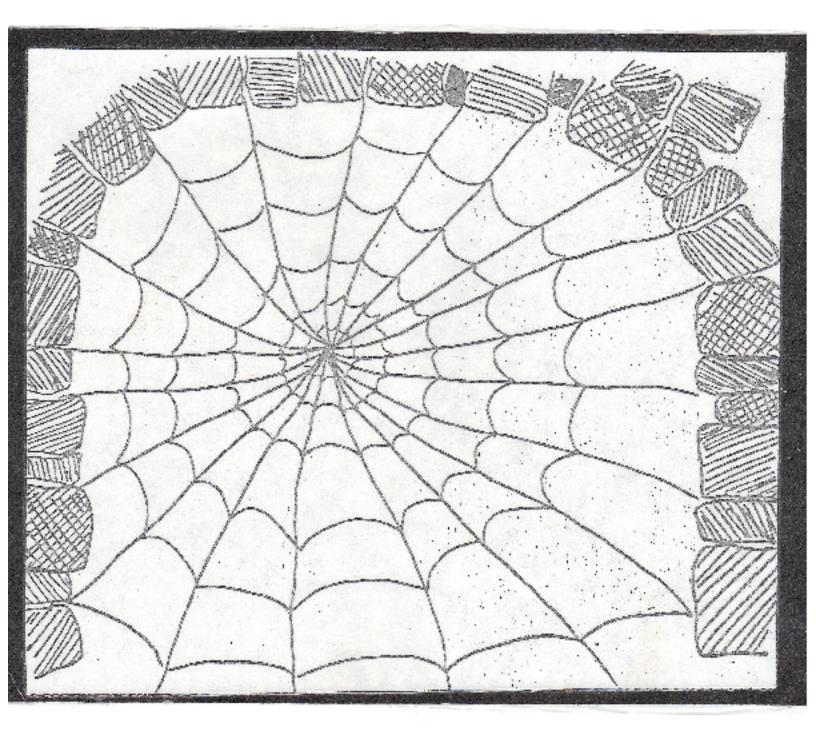
Math Talk to Encourage Sentence Stems to Read Questions to Ask

Math Talk:

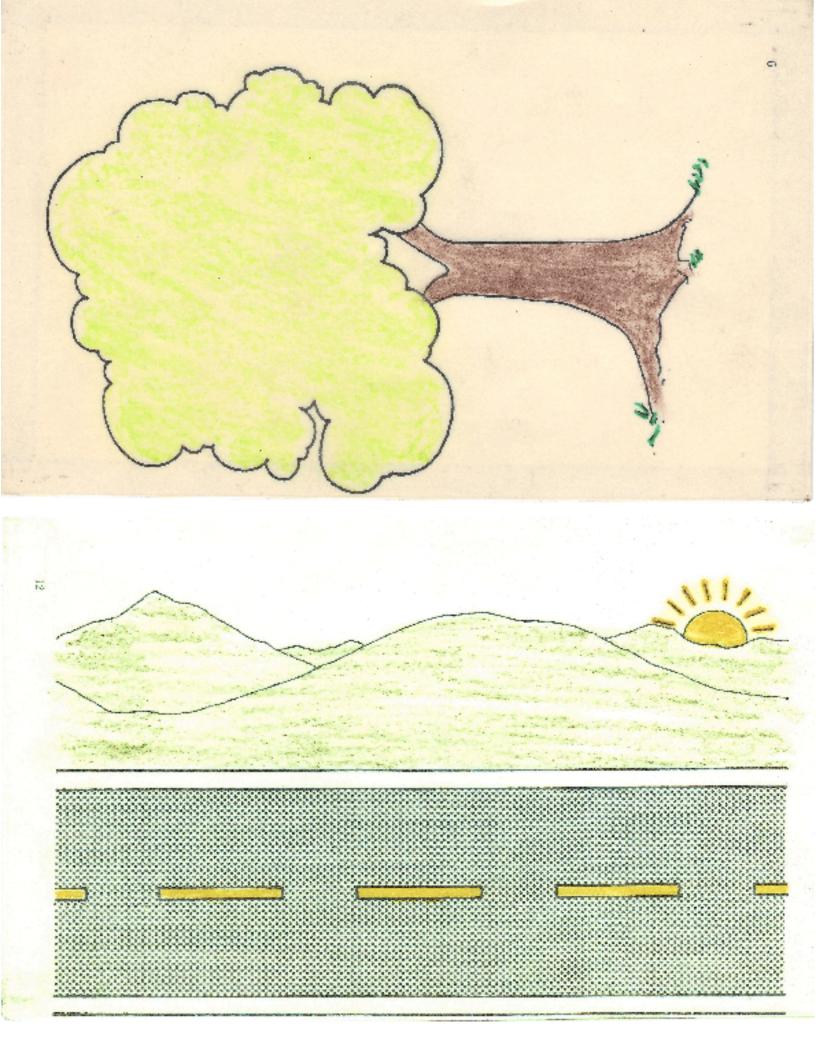
Sentence Stems:

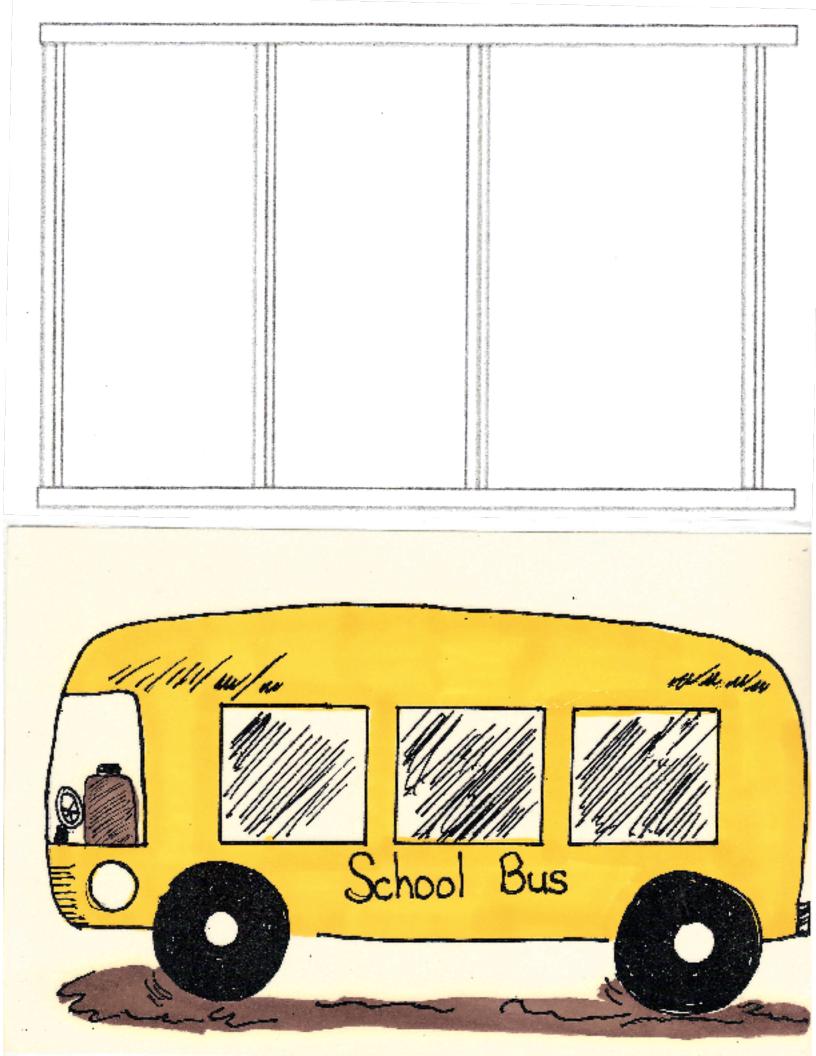
Questions:

Storyboards









Common Addition and Subtraction Situations

Glossary

Table 1 Common addition and subtraction situations¹

| rable r Common | addition and subtraction situations | | |
|--|--|---|--|
| | Result Unknown | Change Unknown | Start Unknown |
| Add to | Two bunnies sat on the grass. Three more bunnies hopped there. How many bunnies are on the grass now? 2 + 3 = ? (K) | Two bunnies were sitting on the grass. Some more bunnies hopped there. Then there were five bunnies. How many bunnies hopped over to the first two? 2 + ? = 5 (1 st) | Some bunnies were sitting on the grass. Three more bunnies hopped there. Then there were five bunnies. How many bunnies were on the grass before? ? + 3 = 5 (2^{nd}) |
| Take from | Five apples were on the table. I ate two apples. How many apples are on the table now? 5-2=? (K) | Five apples were on the table. I ate some apples. Then there were three apples. How many apples did I eat? 5 - ? = 3 (1 ⁴⁶) | Some apples were on the table. I ate two apples. Then there were three apples. How many apples were on the table before? $?-2=3$ (2^{nd}) |
| | | | |
| | Total Unknown | Addend Unknown | Both Addends Unknown ² |
| Put Together/ Take Apart ³ | Three red apples and two green apples are on the table. How many apples are on the table? 3 + 2 = ? | Five apples are on the table. Three are red and the rest are green. How many apples are green? 3 + ? = 5, 5 - 3 = ? | Grandma has five flowers. How many can she put in her red vase and how many in her blue vase? 5 = 0 + 5, 5 = 5 + 0 5 = 1 + 4, 5 = 4 + 1 5 = 2 + 3, 5 = 3 + 2 |
| | (K) | (K) | (1 st) |
| | | | |
| | Difference Unknown | Bigger Unknown | Smaller Unknown |
| Compare ⁴ | ("How many more?" version): Lucy has two apples. Julie has five apples. How many more apples does Julie have than Lucy? (1 st) ("How many fewer?" version): Lucy has two apples. Julie has five apples. How many fewer apples does Lucy have than Julie? 2 + ? = 5, 5 - 2 = ? (1 st) | (Version with "more"): Julie has three more apples than Lucy. Lucy has two apples. How many apples does Julie have? (1 st) (Version with "fewer"): Lucy has 3 fewer apples than Julie. Lucy has two apples. How many apples does Julie have? 2 + 3 = ?, 3 + 2 = ? (1 st) | (Version with "more"): Julie has three more apples than Lucy. Julie has five apples. How many apples does Lucy have? (1 st) (Version with "fewer"): Lucy has 3 fewer apples than Julie. Julie has five apples. How many apples does Lucy have? 5-3 = ?, ? + 3 = 5 |
| | (-) | (-) | (2**) |