

Curriculum topics:

- Word Problems
- Addition and Subtraction
- Mental Math

Subjects:

**Language Arts,
Mathematics**

Grade range: 1 – 3

Who we are:

Resource Area for Teaching (RAFT) helps educators transform the learning experience through affordable “hands-on” activities that engage students and inspire the joy and discovery of learning.

For more ideas and to see RAFT Locations

www.raft.net/visit-raft-locations

TIC TAC TROUBLE

Flip a card to create a new word problem!



This board game gives students practice in solving word problems using mental addition and subtraction.

TIC-TAC-TROUBLE				
12	7	6	14	3
0	15	FREE	10	22
18	13	1	26	16
2	FREE	24	9	5
20	23	8	21	FREE
25	11	4	19	17

Materials required

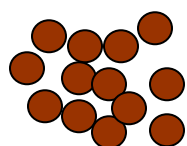
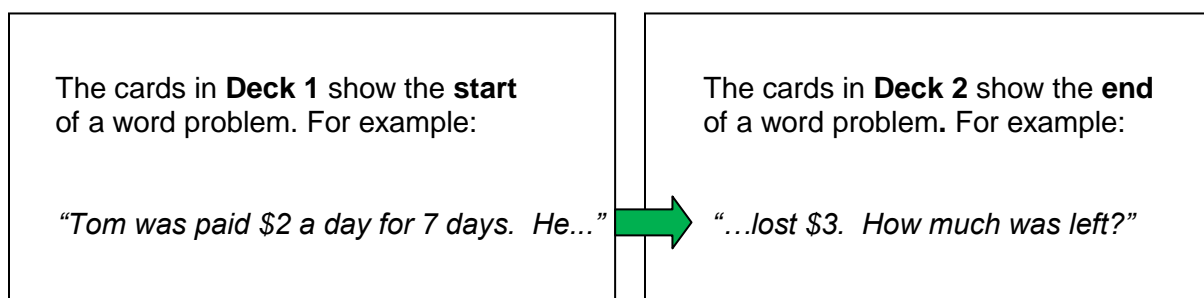
- One pack of pre-printed word problem cards
- Tic Tac Trouble game board
- One 6-sided die (blank)
- 30 game pieces (two colors, 15 each)
- Permanent marker

How to build it

With a permanent marker, write a “1” on three sides of the blank die, and a “2” on the other three sides.

Playing the game (for 2 players)

Note: The pack of cards includes **cards of two different colors**. (Colors may vary.)



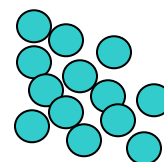
Game Pieces



Deck 1



Deck 2



Game Pieces

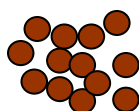
1 Each player chooses one game piece color and gathers all the pieces of that color. To determine who is player 1 and who is player 2, each player should roll the die **3 times**. Sum the rolls – the player with the highest sum goes first.

2 Place the game board between the players.

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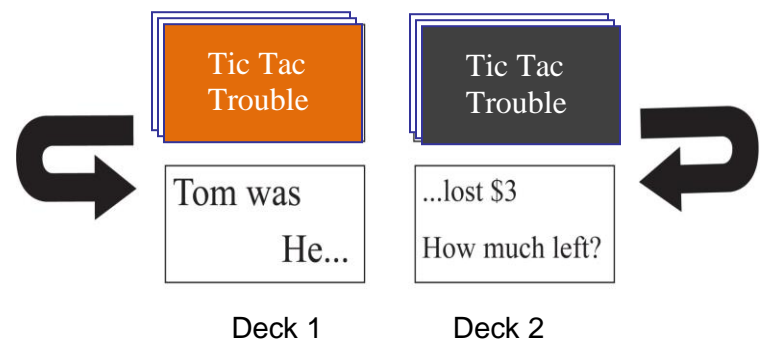
3 Keeping the card colors separate, shuffle Deck 1 and Deck 2 separately.

4 Set the two decks face down below the board, as shown at right.



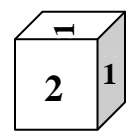
5 To start the game, player 1 will turn one card of each color **face up** on the table and solve the word problem formed by the cards.

(If needed for the first time turning over the cards, switch the position of the decks so that the word problem reads from left to right.)



6 During each turn, one player rolls the die. Next, player 2 will roll the die.

- If a **1** comes up, turn over the top card on **Deck 1**, and use the existing Deck 2 card to make a sentence out of both cards.
- If a **2** comes up, turn over the top card on **Deck 2**, and use the existing Deck 1 card to make a sentence out of both cards.



Only one card is flipped per turn, creating an almost unlimited number of different problems!

7 The player solves the word problem and places an unused game piece over the number on the board equal to the answer.

8 If the answer is already covered by the opponent's game piece, the opponent's piece is removed from that space and replaced by the current player's piece.

9 The game continues, with players rolling the die and turning over one new card each turn. Go to step 6 for player 2 to begin his/her turn.

10 Three game pieces of the same color in a row, either **horizontally, vertically, or diagonally**, wins the game. The FREE spaces are shared by both players.

Who wins this game?

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Curriculum Standards:

Addition and subtraction problems within 20
(Common Core Math Standards: Grade 1, Operations & Algebraic Thinking, 1, 2, & 6)

Addition and subtraction problems within 20
(Common Core Math Standards: Grade 2, Operations & Algebraic Thinking, 2)

Addition and subtraction problems within 100
(Common Core Math Standards: Grade 2, Number & Operations in Base Ten, 5)

Problem Solving and Reasoning
(Common Core Math Standards: Mathematical Practices Grades 1-3, 1, 2, & 8)

Understand key details & connections in text
(Common Core English Language Arts Standards: Grades 1-3, Reading Informational text, 1 & 3; Reading Foundational skills, 4)

Logical connections
(Common Core English Language Arts Standards: Grade 3, Reading Inform., 8)

Conversation & Vocabulary
(Common Core English Language Arts Standards: Grades 1-3, Speaking & Listening, 1 & 2; Language, 4)

Additional standards at:
<http://www.raft.net/raft-idea?isid=669>

Learn more

- This same game can be used with more challenging word problems involving higher-level math operations – create custom cards to create the desired level of challenge.

Extend this activity with the following suggestions:

- Try the game as “solitaire” – one player.
- Keep playing until all of the numbers are covered.

Related activities: See RAFT Idea Sheets:

31 -

<http://www.raft.net/ideas/31.pdf>

Add It Up -

<http://www.raft.net/ideas/Add It Up.pdf>

Apple Match -

<http://www.raft.net/ideas/Apple Match.pdf>

Gaming Sticks -

<http://www.raft.net/ideas/Gaming Sticks.pdf>

Peek-a-Boo-

<http://www.raft.net/ideas/Peek-a-Boo.pdf>

Pick a Stick-

<http://www.raft.net/ideas/Pick a Stick.pdf>

PIG –

<http://www.raft.net/ideas/PIG.pdf>

Roll Over and Over-

<http://www.raft.net/ideas/Roll Over and Over.pdf>

Seeing Spots-

<http://www.raft.net/ideas/Seeing Spots.pdf>

Show Me the Bunny-

<http://www.raft.net/ideas/Show Me the Bunny.pdf>

Resources

Visit www.raft.net/raft-idea?isid=669 for “how-to” video demos & more ideas!

See these websites for more information on the following topics:

- **Addition fact problems and lessons –**
<http://illuminations.nctm.org/LessonDetail.aspx?id=U58>