



Activity B.6: Snails Trails

Special Note: This game does not help players visualize the problems; it uses (and provides value for) skills they have acquired previously. Zillio is merely an incentive to having players do a whole lot of mental math. The format of the game helps focus on equivalency. This version of Snails Trails is slightly different than the one in the Games section. This version encourages everyone to calculate every time a number sentence is called out, to see if one of his/her own snails gets to move up. If the math is challenging for the players give each one a foam card to practice counting on and counting down.

Learning Objectives:

- 1) Practice addition for sums equal to 4 through 12.
- 2) Practice simple multiplication.
- 3) Practice simple division.
- 4) Understand equivalency:
 $3 + 9 = 3 \times 4 = 14 - 2$.

Examples of Skills Used:

- 1) $3 + 8 = 11$
- 2) $5 + 0 = 5$
- 1) $9 - 6 = 3$
- 2) $3 \times 4 = 12$
- 3) $18 \div 2 = 9$

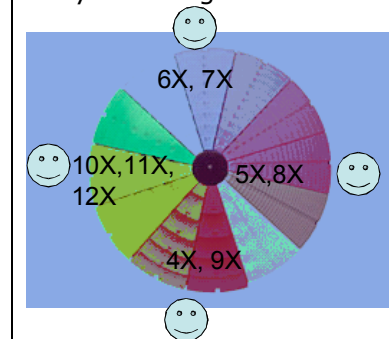
Setup:

- 1) Place 4x through 12x staircases as shown at right. Use staircases 1x→3x to separate players or remove those staircases from Zillio.
- 2) Place one token, blank side up, in the notch on the bottom step of each staircase in play (4x through 12x).
- 3) Assign players to staircases as shown:
 - a. Player 1: 4x, 9x
 - b. Player 2: 5x, 8x
 - c. Player 3: 6x, 7x
 - d. Player 4: 10x, 11x, 12x

Maximum Number of Players for Small Group Activities: 4

Players Positions: Seated

Grey foam logs: Out



Game Objective: Help each snail race to the top of Zillio.

<ol style="list-style-type: none"> 1) Using one of the game charts below call out the series of problems, beginning with column 1 and continuing on to columns 2→4. The first two charts focus on addition and subtraction, the third chart includes all four operations. The fourth chart allows you to make up problems as you go but insures that the moves will be balanced between players. 2) The player whose staircase matches the calculated solution gets to move the snail on that staircase up one step. 3) If desired, put a list on the board of the order in which snails made it to the top. 	<p>Hint: Each game in the chart below is balanced so that all snails seem to have a "chance of winning" and each player stays involved until the end of play. A different snail wins in each game.</p>
<p>Observe and Assess:</p> <ol style="list-style-type: none"> 1) Students' addition and subtraction skills. 	
<p>Group Discussion: N/A</p>	
<p>Transition to Paper: (This can be a whole class activity)</p> <ol style="list-style-type: none"> 1) Similar to bingo, give each player a blank 2D worksheet (see below). 2) Make up number sentences to focus on the skill and level of difficulty you want to emphasize such as one or more of these: <ol style="list-style-type: none"> a. Simple addition/subtraction b. Two-digit subtraction (whose difference is always ≤ 12.) c. Simple sums of three numbers. d. A few multiplication or division problems for your advanced learners. Hint: You will be able to use more division problems than multiplication problems. 3) Each time you call out a problem, each player records the number sentence and solution in the column equals the sum or difference. 	

- 4) Use the 2D worksheet as a transparency and to record snails' progress to date. The race can occur over several days if you wish.
- 5) All players should have the snails arrive at the top in the same sequence at the same time. Help any player reclassify problems, if they calculated any of the sums incorrectly.



Game 1



Game 2

	Column 1	Column 2	Column 3	Column 4		Column 1	Column 2	Column 3	Column 4
a	3+2	1+7	8+3	3+1+1	a	1+7	6+6	8+3	3+2
b	5-0	6-1	7+1	2+1+1	b	5-0	6-1	7+1	1+3
c	8-4	11+1	4+7	4+4	c	8-4	11+1	4+7	10-6
d	3+3	10-6	9+2		d	3+3	10-6	9+2	7+4
e	7+4	7+3	4+1		e	3+1+1	7+3	4+4	
f	9-4	5+6	10-3		f	9-4	5+6	10-3	
g	12-5	3+5	12-1		g	12-5	3+5	20-9	
h	8+2	7+5	9+1		h	18-7	7+5	9+1	
i	6-2	10-2	12-2		i	6-2	10-2	12-2	
j	12-4	1+4	7-3		j	12-4	1+4	7-3	
k	7-0	8-4	9+0		k	7-0	8-4	9+0	
l	1+9	5+1	13-3		l	3+2	5+1	13-3	
m	4+5	5-1	1+5		m	4+5	5-1	1+5	
n	3+3	7-2	6+6		n	3+3	7-2	1+9	
o	10-4	1+3	3+2		o	10-4	4+1	2+2+1	
p	8-1	5-1	5+1		p	8-1	5-1	5+1	
q	2+7	5+2	10-5		q	2+7	5+2	8+2	
r	6-2	15-11	5+3+1		r	2+3	15-11	5+3+1	
s	3+4	5+3	7-2		s	3+4	5+3	7-2	
t	10-6	2+1+6	6+1		t	13-9	2+1+6	6+1	
u	2+2+7	10-1	5+7		u	10-5	10-1	5+7	
v	2+4	5+1+0	12-6		v	2+4	5+1+0	12-6	
w	9-5	6+3	12-7		w	9-5	6+3	12-7	
x	10-2	6+0	2+3		x	10-2	6+0	2+1+1	
y	8-2	2+2	18-7		y	8-2	2+2	6-2	
z	5+5	10+2	6+6		z	5+5	16-4	19-7	



Game 3



Game 4 (Make up your own number sentences equal to:)

	Column 1	Column 2	Column 3	Column 4		Column 1	Column 2	Column 3	Column 4
a	$10 \div 2$	$1+7$	$8+3$	$3+1+1$	a	8	12	11	12
b	$5-0$	$6-1$	$7+1$	$2+1+1$	b	5	5	8	4
c	$8-4$	4×3	$4+7$	$4+4$	c	4	4	11	11
d	3×2	$10-6$	$33 \div 3$		d	6	12	11	4
e	$7+4$	$7+3$	$4+1$		e	5	10	7	
f	$9-4$	$5+6$	$10-3$		f	5	8	8	
g	$12-5$	8	$20-9$		g	7	11	7	
h	$40 \div 4$	6×2	$9+1$		h	11	8	10	
i	$6-2$	$10-2$	$12-2$		i	8	12	4	
j	$12-4$	$1+4$	$8 \div 2$		j	4	5	10	
k	$7-0$	$8-4$	$9+0$		k	7	4	9	
l	$1+9$	$5+1$	$13-3$		l	9	4	4	
m	$4+5$	$5-1$	$1+5$		m	6	6	6	
n	$3+3$	$10 \div 2$	12		n	5	5	10	
o	$10-4$	$1+3$	$3+2$		o	6	10	5	
p	$8-1$	$5-1$	$5+1$		p	7	11	6	
q	$2+7$	$5+2$	$10-5$		q	5	5	10	
r	$6-2$	$15-11$	9		r	9	4	9	
s	$3+4$	$5+3$	$7-2$		s	4	8	5	
t	$13-9$	$2+1+6$	$21 \div 3$		t	7	9	12	
u	$2+2+7$	$10-1$	$5+7$		u	5	9	7	
v	$2+4$	$5+1+0$	3×2		v	6	6	6	
w	$9-5$	$6+3$	5		w	4	6	5	
x	$3+5$	$6+0$	$2+3$		x	8	9	4	
y	$8-2$	$2+2$	11		y	6	4	4	
z	$5+5$	$15-3$	$19-7$		z	10	12	5	

