

# Race to the Tree Game

By Top Ten Mathematics

## Years 4-6 decimals version:

1. Flip the measuring tape over (Top Ten measuring tapes show decimals at the back). Stick it to the desk with Blu Tack.
2. Scrunch up 5 present tokens and 5 candy canes into a hat. Pull 3 tokens per turn. A candy cane is a hundredth. A present is a tenth.
3. Race using 10cm straws and 1cm straws, or 10cm sticks and 1cm squares as shown here. Aim to reach one whole before your partner.
4. Record the running total as a decimal each turn, as well as a decimal fraction and percentage. The straws cost 1 cent per centimetre, so a 1cm straw is one-cent, and a 10cm straw is 10 cents.



Decimal	Decimal fraction	%
0.23	$\frac{2}{10} + \frac{3}{100}$ $\frac{20}{100} + \frac{3}{100}$ $\frac{23}{100}$	23¢ 23%
0.45	$\frac{4}{10} + \frac{5}{100}$ $\frac{40}{100} + \frac{5}{100}$ $\frac{45}{100}$	45¢ 45%



# Years 4-6 enabling and extending prompts

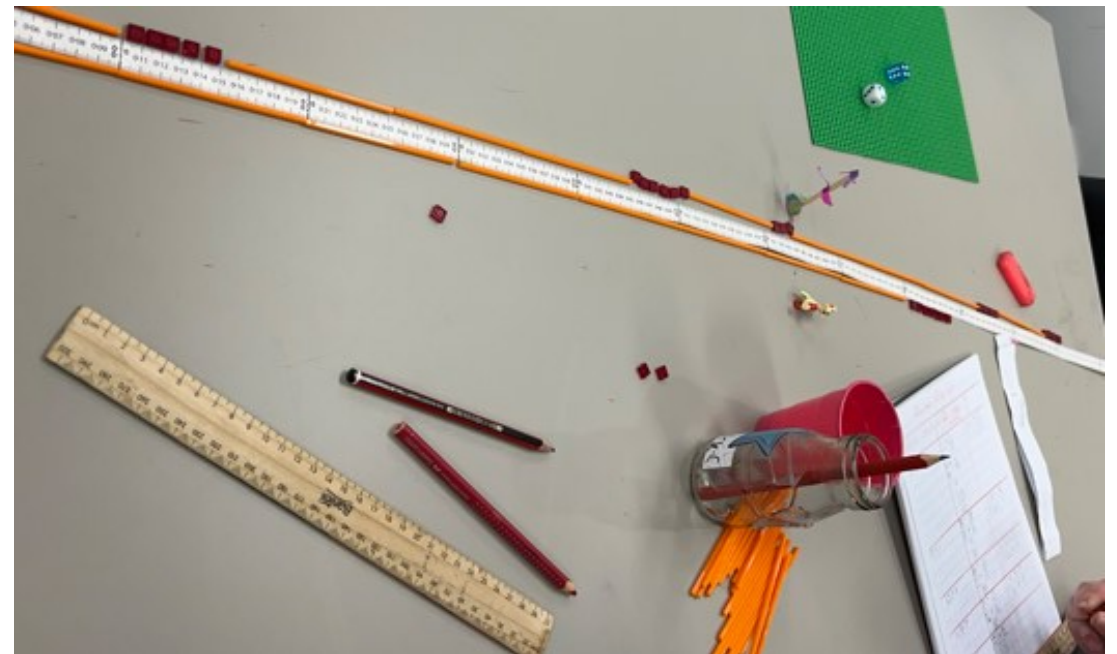
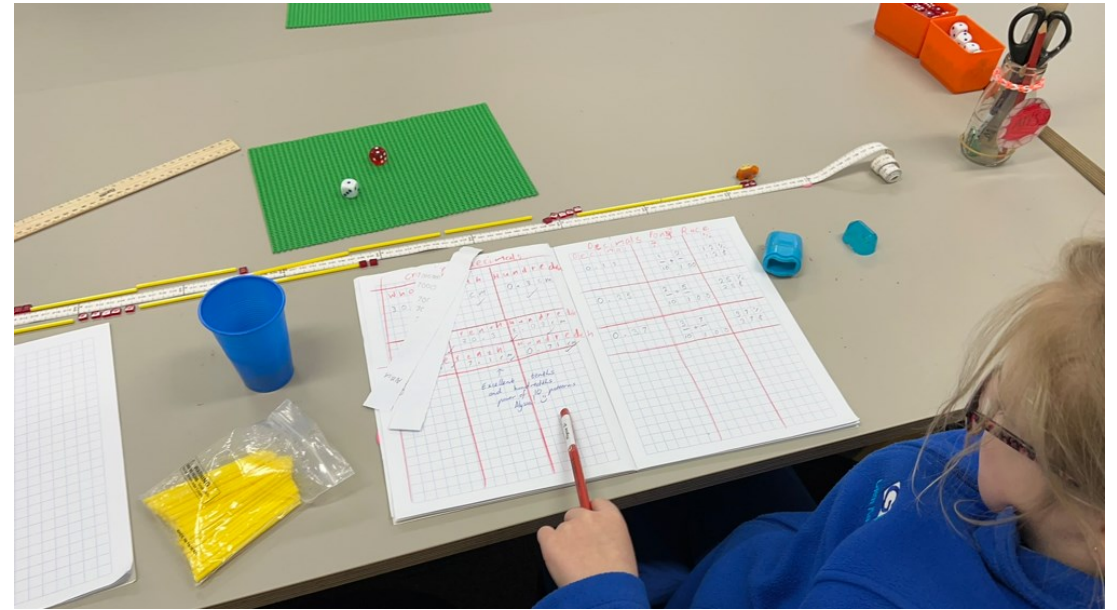
**Support:** Turn the measuring tape over and play the 100cm or 150cm version with whole numbers using place value blocks (MAB) along the measuring tape (Years 1-3 version of the same game).

**Extension 1:** Record how many more to one whole (1 metre).

**Extension 2:** Record the difference between your and your partner's position every turn.

**Extension 3:** Record equivalent and simplified fractions every turn.

**Extension 4:** For one turn during the game, you have a multiplication cheat code. On another turn, you have a division cheat code. Roll a 6-sided dice for what you can multiply and divide by, then decide what to do with these and when to use each of them.





Creating the tenths and hundredths for the game

0.13	$\begin{array}{r} 13 \\ \hline 100 \end{array}$	13¢ 13%
0.34	$\begin{array}{r} 34 \\ \hline 100 \end{array}$	34¢ 34%

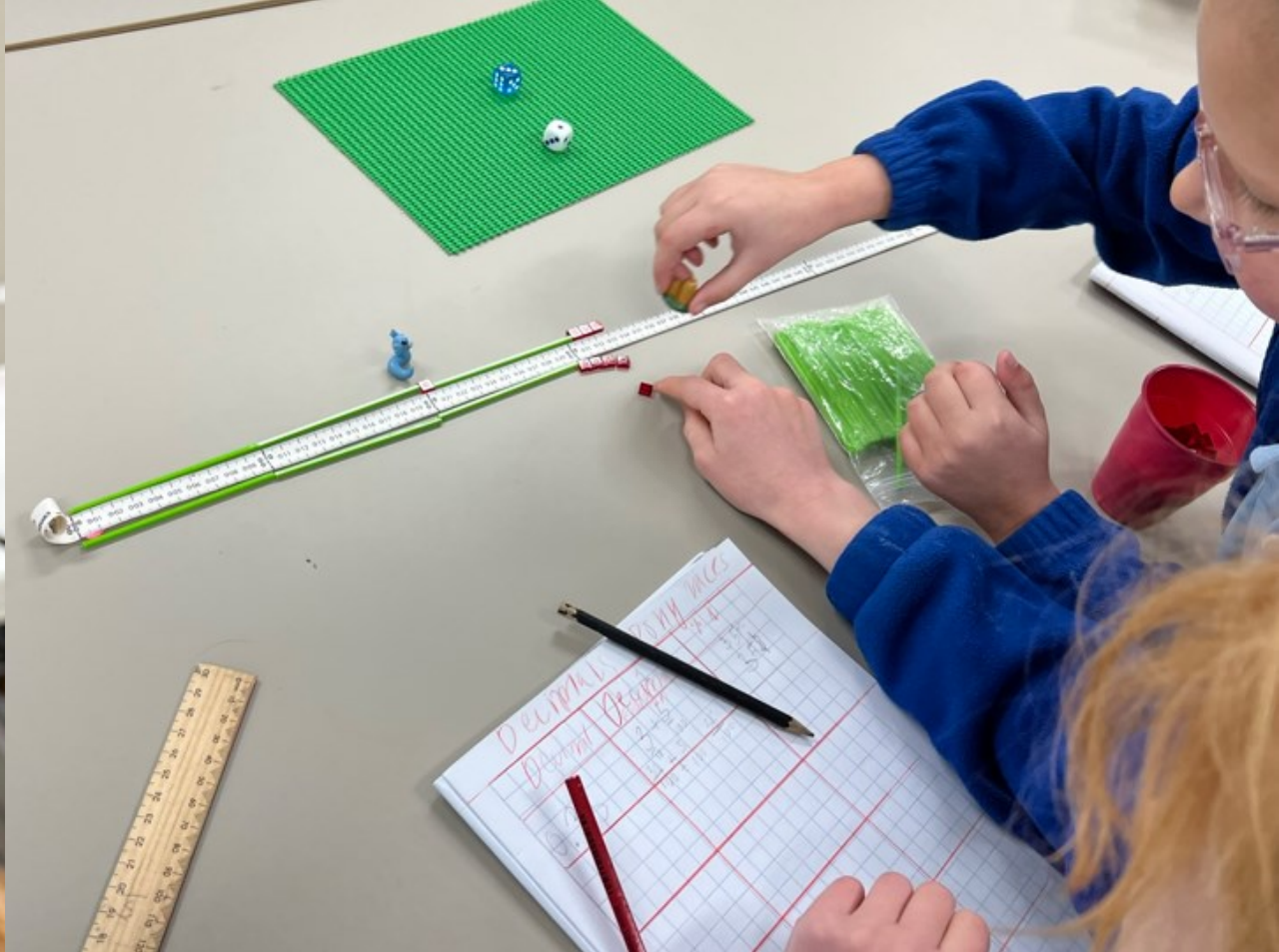
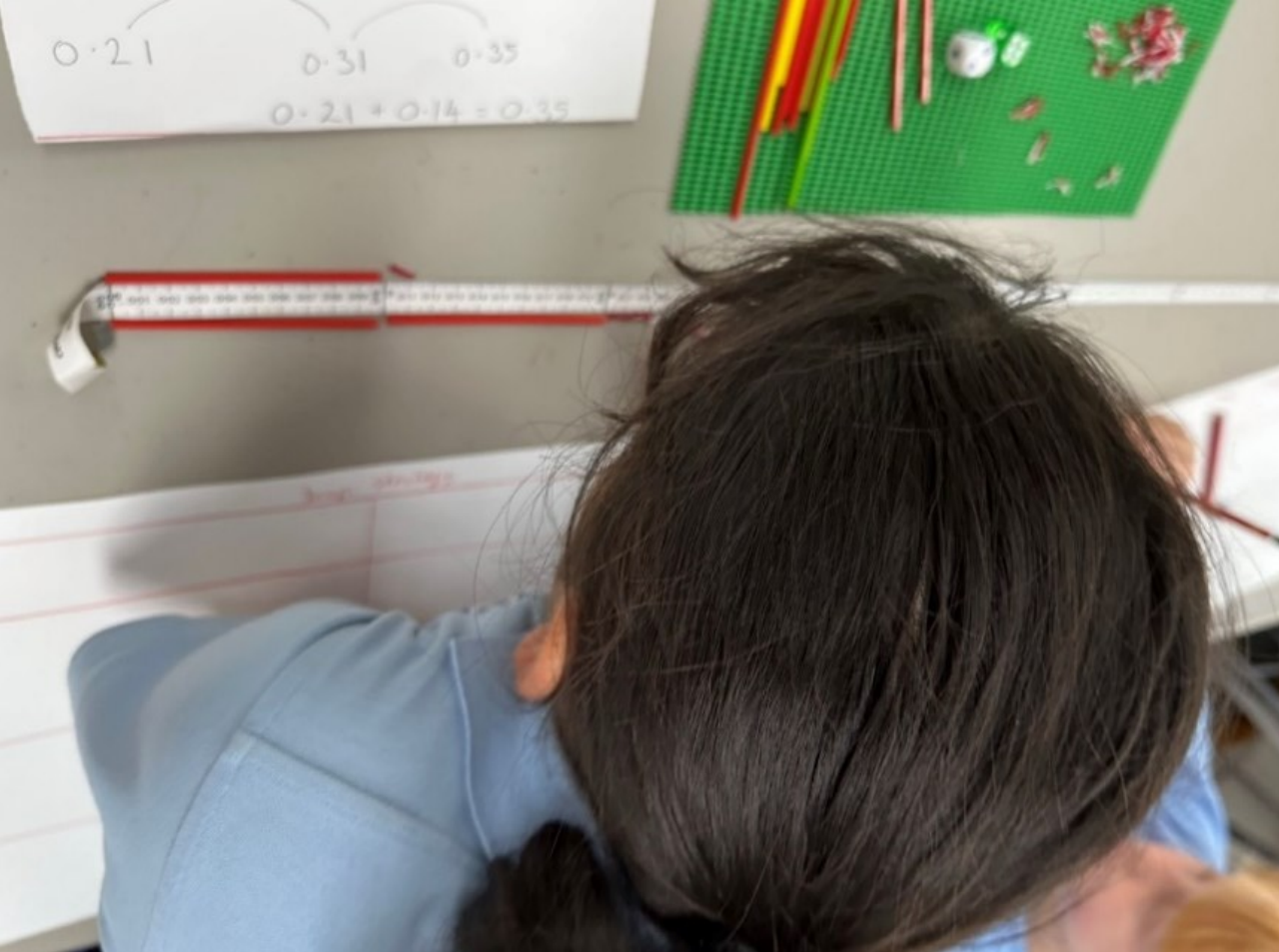
### Decimals Pong Race

Decimal	$\frac{\text{¢}}{100}$	%
0.12	$\begin{array}{r} 12 \\ \hline 100 \end{array}$	12% 12¢
0.25	$\begin{array}{r} 25 \\ \hline 100 \end{array}$	25% 25¢
0.37	$\begin{array}{r} 37 \\ \hline 100 \end{array}$	37% 37¢
0.49	$\begin{array}{r} 49 \\ \hline 100 \end{array}$	49% 49¢
0.61	$\begin{array}{r} 61 \\ \hline 100 \end{array}$	61% 61¢
0.76	$\begin{array}{r} 76 \\ \hline 100 \end{array}$	76% 76¢

Recording student work samples  
– Year 2 extension Top Ten group



Race to 1 whole game in action at an intensive Top Ten member school



Race to 1 whole game in action at an intensive Top Ten member school