

Decimal Derby

- a decimal arithmetic game -

Overview: Decimal Derby is a fast-paced boardgame based on decimal math with all the rules and hints for play on the gameboard itself.

What it Teaches: Rather than saddling an elementary-level child with memorizing steps required for the various math operations when dealing with decimal numbers, Decimal Derby is a fun way of learning and reinforcing the rules while having fun.

To Play:

1. Have your kids go through the house and pick out their favorite small trinket to use as a game piece. My kids use little toys like cars and animals and even sometimes a penny or a game piece from a different game.
2. Player One rolls the three dice. The Operator Die indicates which of the 4 math operations the player will have to solve. Then your child places Die A on the Die A square for that math operation. Next your child places Die B in the square below Die A.
3. Now Player One looks at the math operation and decides how many moves to make on the gameboard with their piece. Your child does not need to do the actual math in order to figure this out since all the kids are learning is how to handle the decimal place for a given arithmetic operation. If your child is a mental math kind of kid, then you can go ahead and have them calculate the answer. Otherwise, they can simply determine how many decimal places there will be in the final answer. The exception to this is for the operation of dividing a number by a decimal number. In that case, the number of moves on the gameboard is determined by the number of times you must shift the decimal place over before you begin dividing. Below is a table that explains the moves.

Operator Die	Math Rule	Player Moves
Addition	Line up the decimals in both numbers: $\begin{array}{r} \\ + \\ \hline \end{array}$	Forward, by number of decimal places in final answer.
Subtraction	Line up the decimals in both numbers: $\begin{array}{r} \\ - \\ \hline \end{array}$	Backward, by number of decimal places in final answer.
Multiplication	Count the total number of decimal places in initial numbers: $\begin{array}{r} \\ \times \\ \hline \end{array}$	Forward, by number of decimal places in final answer.
Division by a Whole Number (W) (if Die B turns out to be a Whole Number)	Shift the decimal up: $W \overline{) }$	Forward, by number of decimal places in final answer.
Division by a Decimal Number (D) (if Die B turns out to be a Decimal Number)	"over, over, up" $D. \overline{) }$	Forward, by number of times you shift the decimal place over before doing the math.

4. Now Player Two takes their turn and the game continues trading back and forth until someone reaches the end of the derby track first. Generally a game takes 10-15 turns to reach the end of the board, making this a quick game to play.

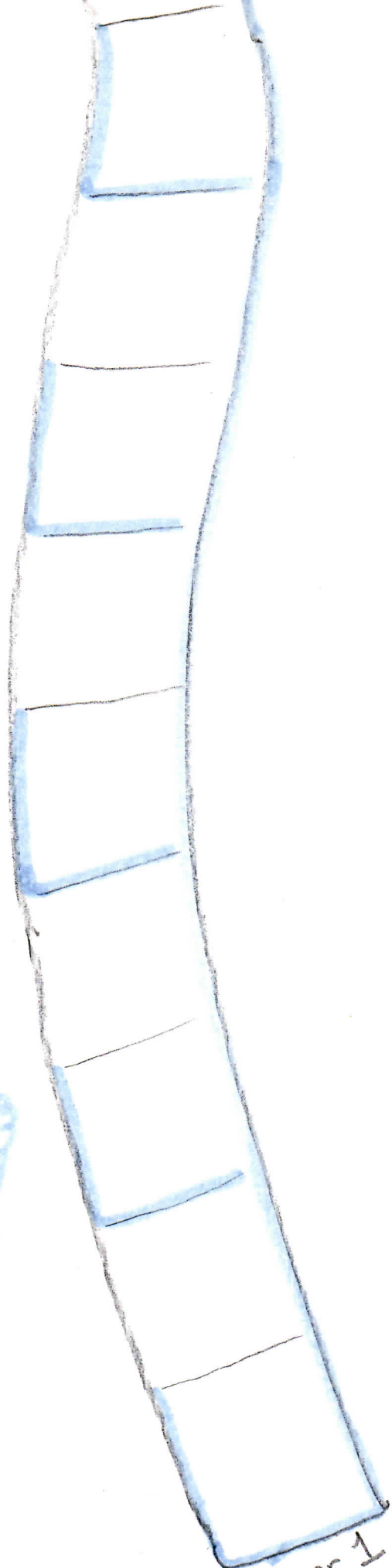
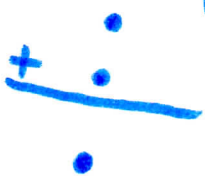
Setup and Assembly Instructions:

- Print out the four included PDF files, tape together in order to assemble the game board.
- Print out Dice PDF sheet. If you do not want to deal with the Dice step, you can cover 3 dice with masking tape and write out the numbers from the Dice PDF on the dice.
- Now you are ready to play.

"line up"



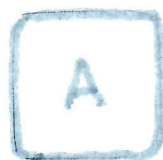
"line up"



Player 1
Start
Here

The Decimals

- Roll all 3 die
- Operator die tel math to do
- Place Die A in
- Place Die B in
- Check the bush see how many playing piece,



+

ADD

-

SUBTRACT

x

MULTIPLY

DECIMALS

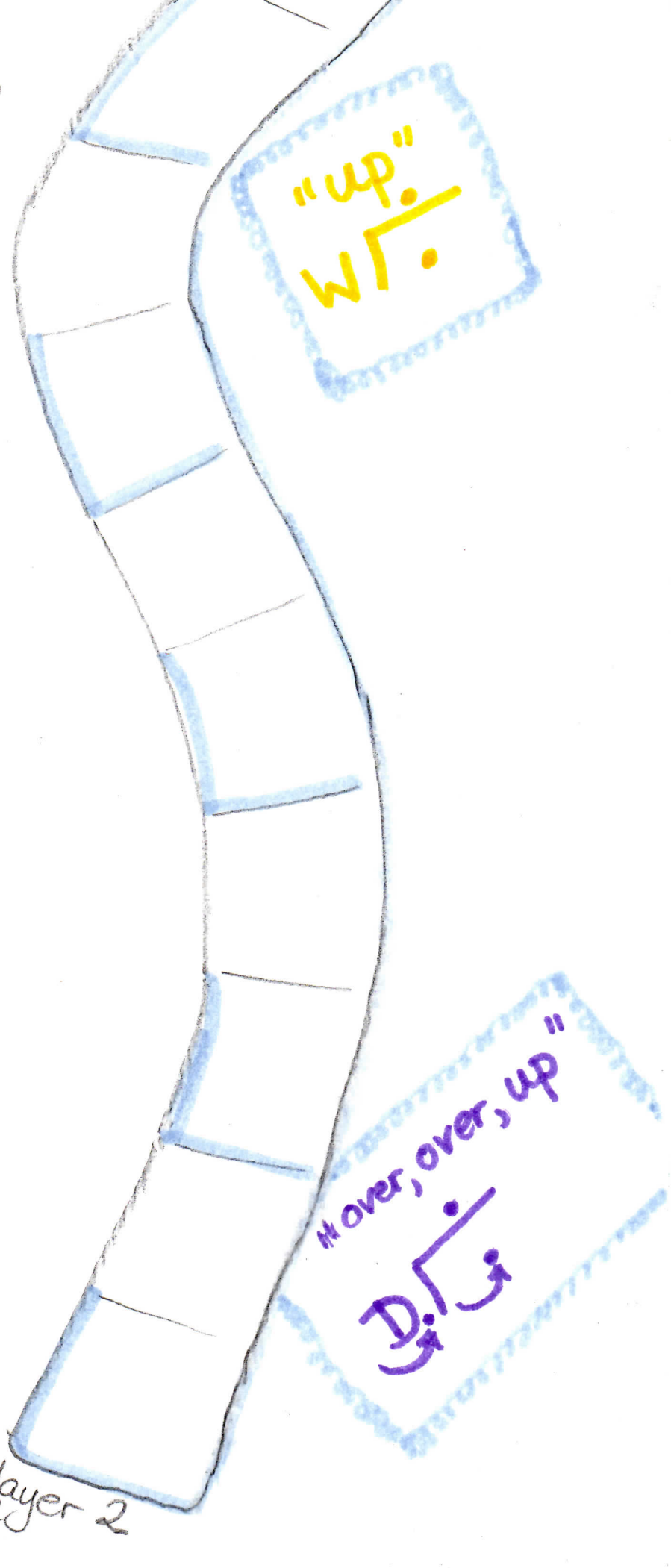
line up
pieces
(cars, toy
figures)

ator 2000

Is you which kind of
A box (below)
B box (below)
s on the track to
spaces to move your

A	A	A
B	B	B
\times MULTIPLY	\div DIVIDE BY WHOLE	\div DIVIDE BY DECIMAL

mal
BY



END

ADD

or

SUBTRACT

then

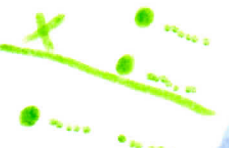
move your piece
forwards (if ADD) or
backwards (if SUBTRACT)
the number
of decimal
places in
answer.

MULTIPLY

then

move your piece
forwards the number
of decimal places
in your answer.

X, then
count



Player's F

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END

DIVIDE BY A DECIMAL

then
move your piece
forwards the number
of decimal places
you shift the denominator
over.

DIVIDE BY A WHOLE

then
move your piece
forwards the number
of decimal places in
your answer.

Paddock

our favorite playing
are in the paddock.
animals, folded paper
use your imagination!!