

# THE EXCHANGE GAME- USING BASE 10 MATERIALS

Players need to work in small groups (2-4)

Each player needs a game board like this

*(A3 is a good size for the HTU (hundreds, tens units) board)*

They need one or two dice to share and some Base 10 materials:

H	T	U

or

T	U

Players take turns to:

- roll the dice
- collect that number of ones and place them in the units (U) part of their game board
- any time they have ten (or more) units in that column, ten must be exchanged for a ten stick, which is placed in the tens (T) column

For example,

H	T	U
		

**Turn 1** .... 5 is rolled on the dice

H	T	U
		

**Turn 2**.... 3 is rolled on the dice

H	T	U
		

**Turn 3**.... 6 is rolled on the dice

... and so on. The winner is the player with the highest total, when the teacher says 'STOP'.

## Next steps:

When the children are ready ask them to:-

- use 2 dice (add them, multiply them, use one as tens and the other as units)
- record the number they have each time using number cards or by writing the number
- keep a record of the progress of the game using number sentences (eg above  $8+6=14$ )
- **PLAY THE GAME IN REVERSE.** Whatever is rolled on the dice needs to be put back, which may involve exchanging hundreds for tens or tens for ones.
- Record the reverse game, first in their own way, then as number sentences

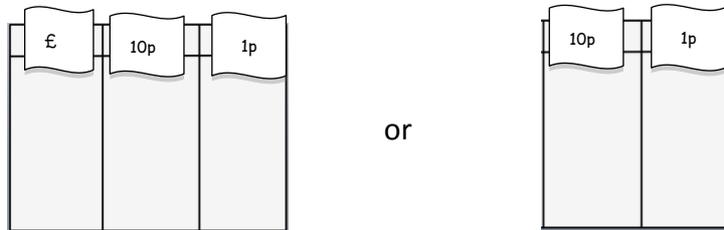
# THE EXCHANGE GAME- USING MONEY

Players need to work in small groups (2-4)

Each player needs a game board like this (A3 is a good size for the board)

They need one or two dice to share and plenty of 1p, 10p and £1 coins (just 1p and 10p coins are needed for the small board):

Stick labels over the column titles to adapt the board for money. This is better than using a different board, because it reinforces the connection between numbers and money.



Players take turns to:

- roll the dice
- collect that number of pennies and place them in the 1p part of their game board
- any time they have ten (or more) pennies in that column, ten must be exchanged for a 10p coin, which is placed in the 10p column

For example,

H	T	U

**Turn 1.... 5 is rolled on the dice**

H	T	U

**Turn 2.... 3 is rolled on the dice**

H	T	U

**Turn 3.... 6 is rolled on the dice**

... and so on. The winner is the player with the most money, when the teacher says 'STOP'

## Next steps:

When the children are ready ask them to:-

- use 2 dice (add them or multiply them or use one as tens and the other as units)
- record the amount of money they have each time by writing the amount.
- keep a record of the progress of the game using number sentences (eg above  $8+6=14$ )
- **PLAY THE GAME IN REVERSE.** Whatever is rolled on the dice needs to be put back, which may involve exchanging a £1 coin for ten 10p's, or a 10p coin for ten pennies.
- Record the reverse game, first in their own way, then as number sentences.

# THE EXCHANGE GAME- USING COUNTERS

Players need to work in small groups (2-4)

Each player needs a game board like this (A3 is a good size for the HTU board)

They need one or two dice to share and plenty of counters in 3 colours (2 colours for the smaller board):

H	T	U

or

T	U

Players need to agree on a colour to represent hundreds, one for tens and one for units.

Players take turns to:

- roll the dice
- collect that number of counters that represent units and place them in the units (U) part of their game board
- any time they have ten (or more) units in that column, ten must be exchanged for a counter that represents a ten, which is placed in the tens (T) column

For example,

H	T	U
		●●●●●

**Turn 1.... 5 is rolled on the dice**

H	T	U
		●●●●●●●

**Turn 2.... 3 is rolled on the dice**

H	T	U
	○	●●●●

**Turn 3.... 6 is rolled on the dice**

... and so on. The winner is the player with the highest total, when the teacher says 'STOP'.

## Next steps:

When the children are ready ask them to:-

- use 2 dice (add them, multiply them, use one as tens and the other as units)
- record the number they have each time using number cards or by writing the number
- keep a record of the progress of the game using number sentences (eg above  $8+6=14$ )
- **PLAY THE GAME IN REVERSE.** Whatever is rolled on the dice needs to be put back, which may involve exchanging a hundreds counter for ten 10's counters or a ten counter for ten unit counters.
- Record the reverse game, first in their own way, then as number sentences.