

Divisibility Game

Purpose:

The purpose of this activity is to help your child use the divisibility rules.

Link to the Number Framework:

Number Facts, Stage 7

What you need:

Pack of cards. Ace = 1, remove the 10 and the picture cards.

Game boards. You can print these or make your own.

What to do:

Give each player a game board. Shuffle the pack of cards and place them in a face down pile between the players. The aim of the game is to cross off the numbers on the game board using the divisibility rules. Players take turns to take 3 cards and arrange the digits to form a 3 digit number that can be divided by one of the numbers on their game board. If they can do this then they cross off the number on the game board. For example, the cards 2, 4, 5 can be arranged as 524 which is divisible by 2, or as 245 which is divisible by 5. In each turn a player may only cross off one number, in the example the player could cross off either 2 or 5. The divisibility rules are on the game board page. The winner is the first player to cross off all the numbers on their game board.

What to expect your child to do:

Over time expect your child to become quicker at using the divisibility rules and work towards playing the game without the copy of the divisibility rules.

Variation:

Players can cross off more than one number in a turn. If two of the 3 cards are the same a player can choose to swap a card with one from the pack.

Related Māori Vocab:

| | |
|-----------------|----------------|
| riwhiriwhi (~a) | shuffle |
| whakawehe (~a) | divide |
| tau mati-toru | 3-digit number |
| porotiti | counter |
| taurua | even number |
| tapeke | total |

Divisibility Game

Game boards

| | | | | |
|---|---|---|---|----|
| 2 | 3 | 5 | 9 | 10 |
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|---|---|---|---|----|
| 2 | 3 | 5 | 9 | 10 |
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| 2 | 3 | 5 | 9 | 10 |
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|---|---|---|---|----|
| 2 | 3 | 5 | 9 | 10 |
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Hints – The divisibility rules. A number is...

divisible by 2 if the last digit is an even number.

divisible by 3 if the sum of the digits is divisible by 3.

divisible by 5 if the last digit is either 0 or 5.

divisible by 9 if the sum of the digits is divisible by 9.

divisible by 10 if the last digit is 0.