

Columns Concept

Definition

A column is a spatial arrangement of items in a vertical format.

Why Are Digital Columns Important On An iPad?

App developers design apps using familiar and predictable layouts often placing items in items in columns. Lists and menus are good examples of a standard column layout. Understanding how to navigate columns helps children:

- Find and navigate items quickly
- Develop a mental map of the screen layout
- Play games and access information with ease

Columns run up and down and are navigated by dragging a finger up or down through the items in the column.

Reading connection

- **Rows** are typically associated with reading words left to right across a page.
- **Columns** are commonly used for lists of words running vertically down a page.

Rows and columns

- Rows and columns are taught separately
- Later, rows and columns are combined to form tables or grids

Prerequisites

Before introducing **digital columns**, children should first learn:

- Rows
- Columns using tactile materials
- The drag gesture (including dragging in a straight vertical line)
- The drag and split tap gesture
- Spatial locations on the screen

How Does VoiceOver Announce Columns?

- VoiceOver announces the number of columns on the screen.
- When moving between columns, the column name, e.g., “Column #2” is announced.
- Typically, VoiceOver first announces the item, then the row number. However, since VoiceOver Playground activities are teaching the concept of columns, the column number is intentionally announced first.

To Find And Navigate Columns

Since **columns run up and down**, follow these steps:

- To locate a column:
 - Drag a finger **from left to right** across the screen.
 - Stop when VoiceOver announces an item in the first column.
- To explore items in a column:
 - Drag a finger up or down in a straight line within the column.
- To locate multiple columns:
 - When on the first column, drag right to find the next column.
 - Continue dragging right to find all of the columns.

Note:

- **Right/left swipes** can move through items within a column (e.g., in a menu).
- **Up/down swipes** only work when Rotor settings are applied (covered in *Chapter 6*).
 - Up/down swipes DO NOT navigate columns in these grid-based games.

Earcon

A “click” sound plays when navigating between items in the column.

Lessons

Lessons without detailed explanations were covered in previous lessons.

Lesson 1: Drag in a straight line with Sonification (Vertical)

Lesson 2: Drag in a straight line without Sonification (Vertical)

Lesson 3: Column Activity

- **Goal:** Learn to navigate and identify columns of items.
- **Screen Layout:**
 - The screen displays 3 columns, each containing four instruments.
- **Breakdown:**
 - Start at Column 1 (left side of the screen).
 - Drag a finger top to bottom along each column while listening to each instrument name and sound.
 - When all the items in that column have been found, that column will disappear.
 - Repeat the process for all three columns, in order.
 - If the finger moves off a column, restart at the top of that column.

This structured approach helps children improve and understand the concept of columns, digital navigation of columns, develop spatial awareness, and recognize structured digital layouts such as menus, while practicing dragging in a straight, vertical line.