

Corbets Tey School

# Apps to Support the Teaching of...

# CODING



This booklet has been produced by Corbets Tey School for staff, parents/carers and other professionals to provide information on iPad apps that we have found useful for teaching and learning within our school.

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No.	App Name	Good for learning...	Price
1	Pettson's Inventions 1, 2 & 3	Problem solving, perseverance, debugging skills, collaboration	£2.99 each
2	Who is it? Guess it Classic	Categorising, sorting, logical reasoning	Free
3	Matrix Game 1, 2 or 3	Categorising, sorting	£2.99
4	Sort It Out 1 or 2	Categorising, sorting	£2.99
5	Match It Up 1, 2 or 3	Categorising, sorting	£2.99
6	Series 1 & 2	Categorising, sorting	£2.99
7	Daisy the Dinosaur	Coding/programming/algorithms, debugging, problem solving, directional language, sequencing	Free
8	Kodable	Coding/programming/algorithms, debugging, problem solving, directional language, sequencing	Free
9	A.L.E.X	Coding/programming/algorithms, debugging, problem solving, directional language, sequencing	Free
10	Fix Machine	Problem solving, perseverance, debugging skills, collaboration	£2.99
11	Blue Bot	Coding/programming/algorithms, problem solving, directional language, sequencing	Free
12	BeeBot	Coding/programming/algorithms, debugging, problem solving, directional language, sequencing	Free
13	Scratch Jr	Coding/programming/algorithms, problem solving, directional language, sequencing	Free
14	Making Sequences	Sequencing, problem solving	£4.99
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16	Hopscotch	Coding/programming/algorithms, problem solving, directional language, sequencing	Free
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## 1. Pettson's Inventions

This app is pure problem solving. The user is asked to help Pettson drag the correct items to the correct places on the screen to solve the problem. This is suitable for, and will appeal to, older/more able children. Really nice graphics and presented well.



## 2. Who is it? Guess it Classic.

A high quality, free game. It includes more than 70 characters you will unlock after each victory. It comes with 5 exiting game mode (Guess?, Make me guess!, Time Attack, Tournament, Two players) and can be played in 5 difficult levels (from very easy to very hard). It includes texts and audio speeches in English, French and Spanish languages. Supports the development of logical reasoning, categorisation and grouping.

Game modes:

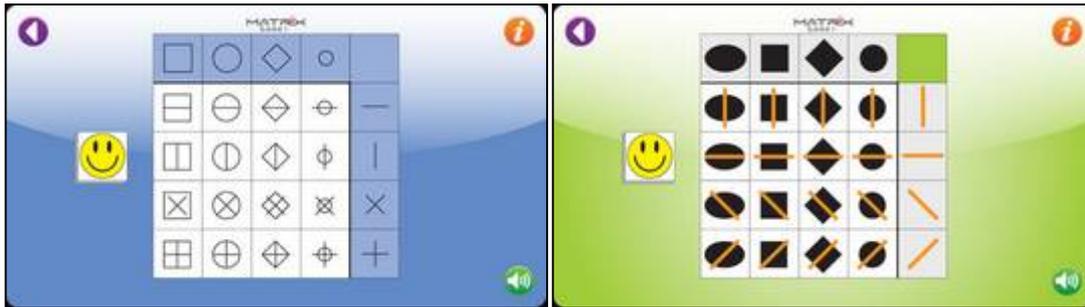
- Guess?: Guess the computer character by asking simple questions.
- Make me guess!: Help computer to guess by answering computer questions.
- Time Attack: Guess computer character as fast as you can with clues computer will gives you.
- Tournament : Guess computer character before it guess your character.
- Two players : Play with friends or family and guess opponent character first.



### 3. Matrix Game 1. 2 & 3

Matrix Game helps develop visual perception skills such as visual discrimination. It also helps develop attention and concentration, spatial orientation and principles of classification and categorization. Furthermore, it helps develop executive functions such as planning and perseverance.

The aim of the game is to arrange the matrix. Each card is a combination of shapes from the horizontal row above and the vertical column on the side. To arrange the matrix drag each card into the meeting point of the horizontal row and the vertical column.



This game encourages learning, playing, exploring and experimenting to acquire new cognitive and fine motor skills.

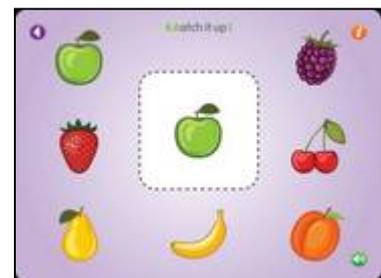


### 4. Sort It Out

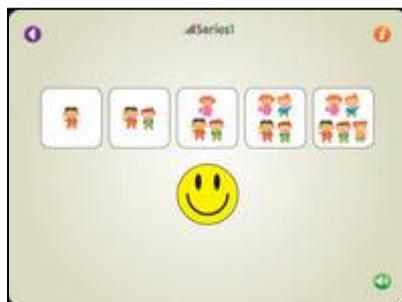
Learn about sorting and arranging with this fun, sorting app which helps develop categorization, grouping, conceptualization, visual perception and fine motor skills.

### 5. Match It Up

Match it up helps develop visual perception skills, cognitive skills such as categorization, and can also develop language skills, for example, by naming the objects and the colors.

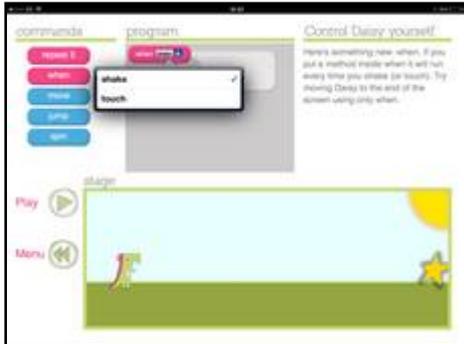


### 6. Series 1, 2 & 3



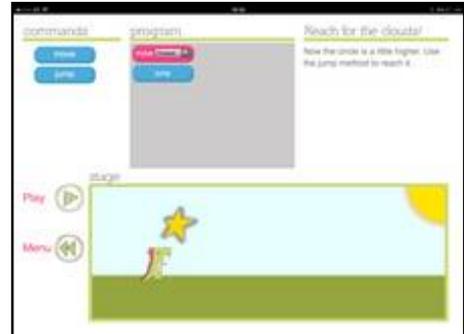
Teaches about the world of relations. Learn to arrange objects in a series based on various principles such as shape, color, size and quantity. The game develops primary math concepts such as size and quantity, visual perception skills, such as visual differentiation, fine motor skills and to develop language skills.

## 7. Daisy the Dinosaur



With the emphasis within the new computing curriculum on programming and creating, this app fits perfectly. It provides an early introduction to the principles of programming where the movement of Daisy the Dinosaur can be controlled by dragging the command blocks across to the

program box and then pressing a play button to see the results.



Daisy will follow the commands that the user sets.

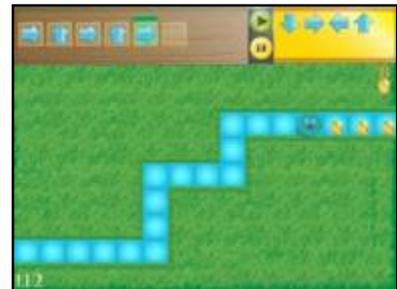
There is a free-play mode and a challenge mode. The challenge mode takes the user through the principles of programming concepts such as 'repeat' sequences and sequences within 'when' conditions.

## 8. Kodable

This app also provides an early introduction to programming concepts and algorithms.

It features a delightful characters in the FuzzFamily who need help to find their way along the pathways to collect the coins and make it to the end of the mazes.

The user has to solve problems in sequential steps by dragging the directional arrows to the program boxes. The programming concepts progress to 'if this, then that' statements and repeat loops.



## 9. A.L.E.X



Another programming app that may appeal to an older pupils. The user gets to move the robot character to the destination square by programming him with a sequence of commands to get through each level. The levels increase in complexity as the user progresses through them.

It has realistic robotic and electronic noises that are very appealing.

There is a create mode which allows the user to create their own layouts and then when they have built them they can play to see if they work as expected.



## 10. Fix Machine

In developing the pre-requisite skills to be able to start to attempt any level of programming there is a need to think logically and predict the effect of instructions on a subject. This app provides a challenge to do just this. The user has to create chain reactions to provide a desired outcome. The objects have to be set up to bounce, pop, ricochet, bash and crash into each other.



There is usually more than one right answer and so this allows the user to be creative and could be a good opportunity to encourage discussion and debate on what is the best solution.

The user can also create levels by adding items to a page and pressing play to see what will happen and how the items will interact with each other. This app has so many possibilities and a really great opportunity to develop thinking and prediction skills as well as developing language and communication.

## 11. Blue-Bot App

The free Blue-Bot App is a new addition to the floor robot family. With the Blue-Bot app you can take a picture of a drawing or a place or a map and then you can program the Blue-Bot to move around your own individualised creations/images.

There are numerous features, which make writing algorithms both fun and educational.

- Step by step programming. Instructions are added to the list and once happy place Blue-Bot back at the start and press go.
- Drag and drop programming. Just drag your instructions into the left hand bar to save
- Include repeats to make things even more fun
- Program 45 degree turns.

Challenge mode will add complexity into the algorithm. Children can also record themselves saying a command and can assign it to a button on Blue-Bot. As the algorithm progresses, they will hear themselves giving the instructions.

Pair the app with a physical Blue Bot and you can write an algorithm from within the app on the iPad and the physical Blue-Bot will follow your instructions. The algorithm steps created on the iPad are sent by Bluetooth to the physical Blue-Bot making the outcomes of the on-screen programming more concrete.



## 12. Bee Bot

Bee Bot is based on the Bee Bot floor robot. It enables children to practise skills in directional language, programming and sequencing using the commands forward, backward, turn left and turn right.

There are 12 levels of progression. It is very nicely designed and very user friendly.



## 13. Scratch Jr

With ScratchJr, children learn important new skills as they program their own interactive stories and games.

By snapping together graphical programming blocks, children can make characters move, jump, dance, and sing. In the process, children learn to solve problems, design projects, and express themselves creatively on the computer. They also use math and language in a meaningful and motivating context, supporting the development of early-childhood numeracy and literacy. With ScratchJr, children don't just learn to code, they code to learn.

ScratchJr was inspired by the popular Scratch programming language (<http://scratch.mit.edu>). The ScratchJr interface and programming language were redesigned to make them appropriate for younger children's cognitive, personal, social, and emotional development.



## 14. Making Sequences

This app provides an easy, user friendly way to teach story sequencing or help children master steps for completing a task. Making Sequences includes 15 pre-prepared photo sequences for teaching story order. Use these or upload your own images and pair with your own/a child's own voice recordings. Teach personalized daily living skills or teach children to sequence stories starring themselves. Also great for making short social stories with a maximum of 5 pictures.



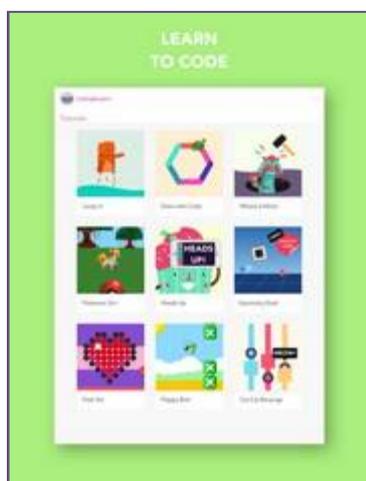
## 15. I Can Animate

Animation is made really simple using this App. You just organise your 'characters' which can be a set of toy or plasticine figures and start taking photos using the in-app camera. As you take a photo a transparent image will allow you to see the position of items in the last photo (known as onion skinning) so you can make adjustments for the next frame. This is a really easy way to create a silent 'movie' from a number of still frame photos. Your completed film can then be exported to the iPad camera roll.



## 16. Hopscotch

Hopscotch is a free programming app for children to learn to code by creating their own games. You can use our video tutorials, or create your own projects from scratch. Play, download and remix millions of games. Free to create, play and learn from starter tutorials.



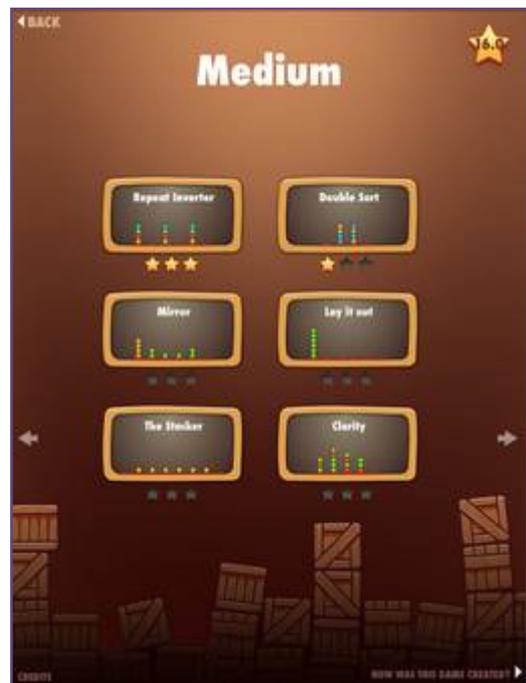
Use blocks to learn coding logic and concepts before diving into the syntax of coding languages. Start your journey as a coder with an easy-to-follow tutorials. Immediately apply what you've learned to make your own art and games.

Browse a community of millions of projects. You can play them, or download and remix them on your own iPad or iPhone.



## 17. Cargo Bot

The puzzle game that challenges your brain and helps you learn programming concepts and logical thinking. It's a game where you teach a robot how to move crates to achieve a desired outcome. The instructions from your toolbox are placed on instruction lines that connect by calling the next row providing an introduction to linking sets of instructions (algorithms).



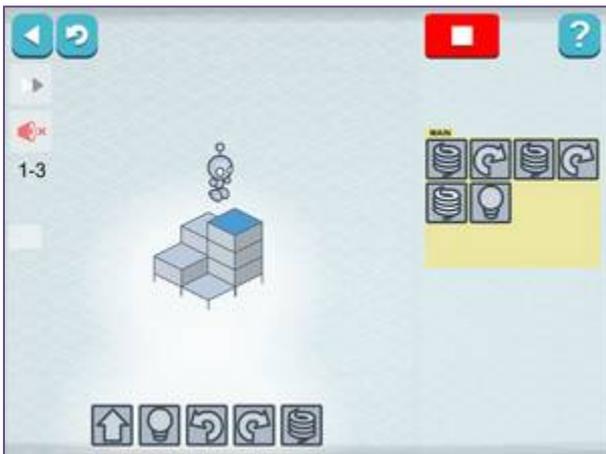
## 18. codeSpark Academy with the Foes

Learn to code program.that teaches the basics of computer programming through a variety of interactive learning activities including puzzles, games, step-by-step creative projects, game design and offline printables.

- Learn key programming concepts and use them to code own projects in Foo Studio.
- Personalized daily activities based on progress.
- New content every month.
- Word-free. Anyone, anywhere can play.
- Perfect for pre-readers, EAL students and with reading and focus-related challenges.
- Supports 3 individual child profiles.



## 19. Lightbot: Code Hour



Lightbot : Code Hour is a programming puzzle game- a game where mechanics require using programming logic to solve levels. This short teaser is meant to introduce players to programming who may have little to no experience. Anyone can play, have fun and learn real programming logic.

Simply guiding a robot to light up tiles and solve levels using commands, Lightbot cultivates a real understanding of procedures, loops, and conditionals.

## 20. SpriteBox: Code Hour

Run and jump into coding. SpriteBox is a unique puzzle-platformer; a mix of exploration and learning to code. By giving Sprite programs of instructions to follow, you can advance through unique worlds and help free Sprite's bottled-up friends.

During your adventure, you'll learn to sequence commands, change parameters, debug faulty logic, and use simple to complex loops to solve problems.

Once comfortable with Icon-based coding, you can choose to play SpriteBox using real Swift syntax. A completely new take based on Blockly's design, Swift mode look like real code... because it is real code! Using a preset list of commands created specifically to be interacted with on mobile, you can explore how Swift code both looks and acts in the real world.

SpriteBox comes with 20 puzzles to solve, and 150 stars to collect.



## 21. Move the Turtle

Move The Turtle is an educational application for iPhone and iPad that teaches children the basics of creating computer programs, using intuitive graphic commands.

A friendly Turtle will introduce the basic concepts of programming in a colourful graphic environment.

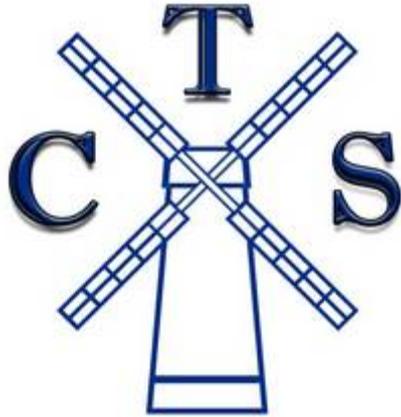


Learn:

- how to plan complex activities composed of simple elements
- how to reuse previously completed work
- how to use graphics, spatial orientation and sound in programming

Become familiar with the notions of loops, procedures, variables and conditional instructions.





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