



Learn

Learning Objectives

- To write and use simple procedures.

Learning Outcomes

All children: will write a procedure to draw a window

Most children: will write multiple procedures to draw a house.

Some children: will design their own procedures to draw geometric patterns.

Cross curricular links

Maths: geometry - properties of shapes

Art: links to Islamic and/or Celtic art. Example:-

<http://www.vam.ac.uk/content/articles/t/teachers-resource-maths-and-islamic-art-and-design/>

Vocabulary

procedure ([see glossary](#)).

Resources

Template: j2e.com/code/template/Y4Template4

Examples: [Logo examples](#)

Video: just2easy.com/vids/j2code/video1

Code

Introduction

Recap learning from Y3/4 lesson plan. Introduce the concept of writing and using a procedure instead of multiple repeats.

Explain that a procedure is a portion of code that can be used multiple times. Show the children how to write a procedure to draw a square.

```
To square Repeat 4 [fd 50 rt 90] End
```

Main Activities

Task 1. Using the square procedure in a repeat command, the children experiment and make different patterns. Can they make a window of 4 squares? Discuss and share what the children have done. Show the flower patterns. Discuss how this has been created.

Task 2. Children create their own geometric flower patterns. Experiment with adding colours.

See example- <http://parkstone.j2webby.com/?p=24>

Challenge

Children load the template, analyse the code and try making changes. Try making the windows bigger or different colours. Now write a new procedure to add a chimney.

Share the new programs on a blog and get parents to leave comments on the work. Schools with access to the Just2easy Tool Suite may do that with a single blog click, other schools may make use of the "link" button to place it on their own blogs.

Repeat

Follow up lesson(s)

Give children time to look at the other examples and experiment creating a variety of patterns and pictures.

Children can be encouraged to continue to experiment by accessing J2Code at home.

Schools with access to the Just2easy ToolSuite may choose to blog some work, pupils can then leave comments on each other's work suggesting improvements or leaving feedback. Teachers may also save and share their own examples and templates.

Assessment

Self and peer assessment - pupils can work with a partner to review, and help correct their code (debug).