

Y4 Computing N2K

Programming A - Repetition in Shapes

Autumn 1

Concepts

Information Technology

Use technology purposefully to create, organise, store, manipulate and retrieve digital content.

Computer Science

Understand what algorithms are, how they are implemented as programmes on digital devices and that programmes execute by following precise instructions. Design, write and debug programmes to accomplish specific goals.

Key Skills

- Create a program using a text-based language.
- Explain what "repeat" means in a program.
- Modify a program to make sure it completes an expected outcome.
- Use decomposition to break down a task into small steps.
- Create a program that includes a count-controlled loop.

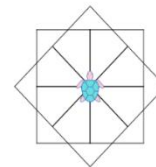
Enquiry Questions


What does repeat mean?

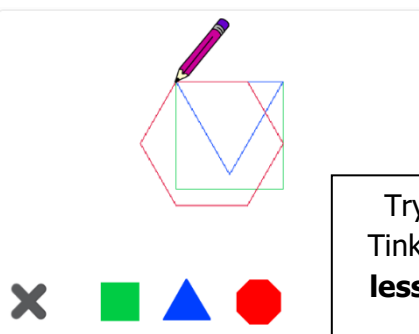
How do you create a loop?

How do you decompose a task?

```
1 repeat 8 [rt 45 repeat 4 [fd 90 rt 90]]
```



 Draw shapes



Try **Turtle Academy** for yourself. Tinker in the **playground** or use the **lessons** to learn more about what is possible!



 Turtle Academy

Key Vocabulary

algorithm - A list of rules to follow in or to complete a task or solve a problem.

command - A single instruction that can be used in a program to control a computer.

repetition - Part of a program where one or more commands run multiple times in a loop.

count-controlled loop - A command that repeatedly runs a section of code a chosen number of times.

decompose - Break down a problem into smaller parts so that it can be resolved in parts.