**Name**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **Date**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

LOGO Lesson 3

# Do Now

**Underneath each set of instructions write a shorter version using the repeat command**

|  |  |  |
| --- | --- | --- |
| clearhomefd 100rt 45fd 100rt 45fd 100rt 45fd 100rt 45fd 100rt 45fd 100rt 45fd 100rt 45fd 100rt 45 | clearhomefd 100lt 72fd 100lt 72fd 100lt 72fd 100lt 72fd 100lt 72 | clearhomefd 50lt 90fd 80lt 90fd 50lt 90fd 80lt 90 |

**Homework written down? Green pen out?**

**Extension:**

* **Which shape does each command make?**
* Sketch ands label the length and angles for each shape.

# Learning objective:

To be able to use LOGO to draw circles and curves

# Activity One – Drawing a circle

**Log on to tiny.cc/mathslogo2 and type in the following code**

clear

home

repeat 10

fd 20

rt 36

end

**What shape does this make?** 🖉 …………………………………………………………………………………..

**What happens when we replace repeat 10 with repeat 20?** 🖉 ………………………………......……………... .............................................................................................................................………………….....…….……………..

**Predict how many repeats you will need to draw a full circle°?** 🖉 I predict I will need ....…………………………

**Now type in this code:**

clear

home

repeat 72

fd 5

rt 5

end

**What shape does this make?** 🖉 …………………………………………………………………………………..

Both these codes make the same shape but the numbers are different.

**What are the main differences between the two codes?** 🖉 ……………………………………………………………………………………..

……………………………………………………………………………………………………………………………………………………………………………………..

……………………………………………………………………………………………………………………………………………………………………………………..

Let’s look at the code more closely. **Answer the questions.**

repeat 72

**What is the number 72 doing?** 🖉 ………………………………………………….

………………………………………………………………………………………………………

fd 5

**What is this code between ‘repeat’ and ‘end’ doing?** 🖉 ……………

………………………………………………………………………………………………………

lt 5

end

**What is the word ‘end’ here for?** 🖉 …………………………………………………………………….

**LOGO Log #1**

**Write down what you have learned about LOGO so far today.**

Today, I have learned …………………………………………………………………………………………………………………………………………………..

…………………………………………………………………………………………………………………………………………………………………………………….

…………………………………………………………………………………………………………………………………………………………………………………….

…………………………………………………………………………………………………………………………………………………………………………………….

# Activity Two – Drawing letters with curves

Here is the code for a C.

clear

home

lt 180

repeat 36

fd 5

rt 5

end

You can type in just to check if you like but you should be able to work it out.

**Now complete the code for a S below using ‘repeat’.**

clear

You can type your completed code into LOGO to see if this works.

home

repeat …………

fd 5

lt 5

…………

repeat …………

fd 5

………… 5

…………

**Practice**

**Try to write you name in LOGO.**

You can use block letters, curved letters, capitals or lower case.

# Merit Challenges

yellow

green

red

black

blue

🡨 This is the Olympic logo

**Your Merit Challenge is to create this logo in LOGO. You must use the five different pen colours on LOGO for the 5 rings.**

Remember – This programme is American so the command is pencolor with no u!

# Plenary– LOGO exam question

The shape on the right was produced by the code:

clear

home

repeat 5

fd 100

rt 72

end

1. **Name the shape \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
2. **Modify the instructions to make the edges of the shape twice as long.**

clear

home

1. **Modify the instructions to draw 2 of these shapes touching each other edge to edge.**

clear

home