



# Computing

## Year 6

### Information Technology

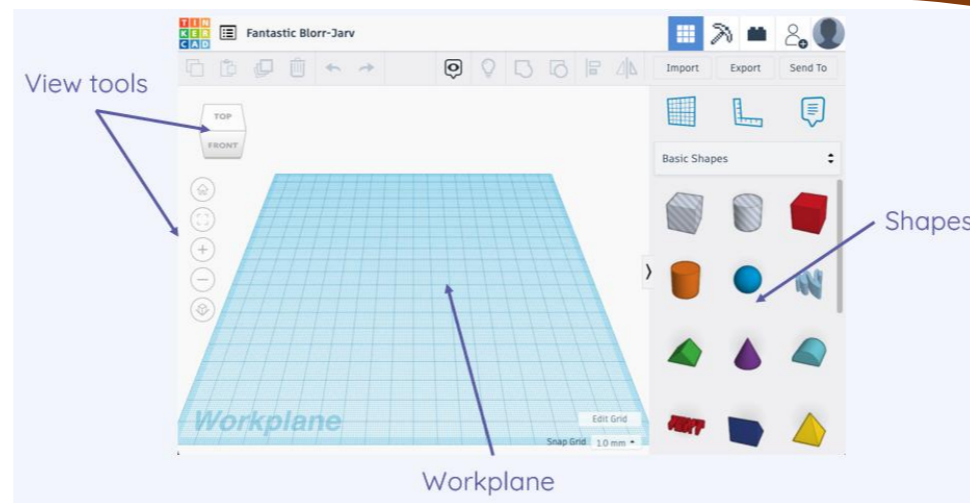
#### 3D Modelling

## Concepts

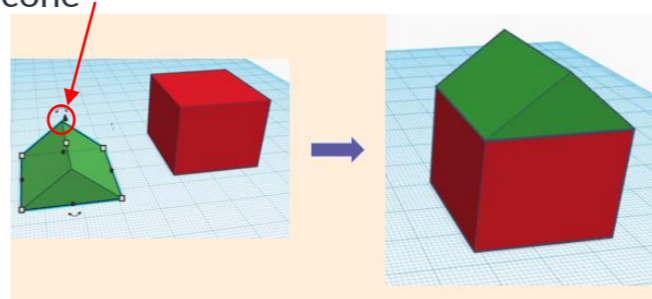
**Identity, Equality,  
Legacy, Climate,  
Sustainability,**

## Aspirational People

Nora Toure is a 3D Printing expert since 2010. She was named among the 20 most influential women in Additive Manufacturing every year since 2015, Nora also received the Certificate of Honor in Manufacturing by the City of San Francisco in 2017 for her work with Women in 3D Printing, and was awarded Community Advocate of the year 2018 by her peers.



- Objects can be placed on top of each other using the cone



- A 3D printer works very much like a robotic hot glue gun.
- The printer can move side-to-side, forward and back, and up and down.
- The model has been sliced into layers, so the only time the printer moves up is when it has completed a layer and is moving to the next one.

### Perspective

A view of a three-dimensional image that portrays height, width, and depth for a more realistic image

### Handles

The little squares that appear on the shape when you select it that allow you to resize it by pulling and pushing them.

### Resize

To make something bigger or smaller.

### Duplicate

To make or be an exact copy of.

### Hollow/hole

A tool used to subtract from a solid shape.

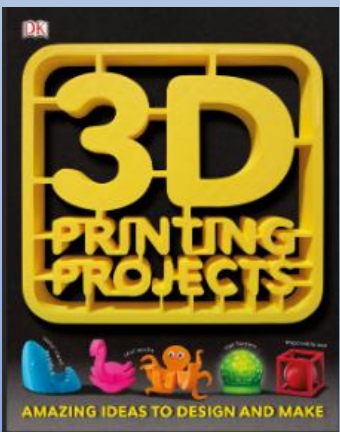
### 3D Printer

A machine that creates a three-dimensional object from a digital file by stacking thin, two-dimensional layers of material.

### Filament

A thin plastic wire that a 3D printer uses to create the object.

## Exciting Books



## Sticky Knowledge

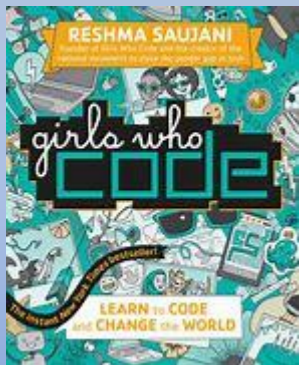
## Subject Specific Vocabulary



# Computing Year 6 Coding

Complex Variables and Other Properties

## Exciting Books



## Concepts

**Identity, Equality, Legacy,  
Climate, Sustainability,**

## Aspirational People

Frances Elizabeth Allen (August 4, 1932 – August 4, 2020) was an **American computer scientist and pioneer in the field of optimizing compilers.** Allen was the first woman to become an IBM Fellow, and in 2006 became the first woman to win the Turing Award.



### Your blocks

You will be using variables to store information that the **user inputs.**

```
set var width to ask width and wait
```

You will perform calculations on the numerical information stored within variables using the **operator** blocks.

```
var cart total x -0.25 round var cart total to .00
```

Create **Boolean expressions** which say if something is true or false.

Use these inside 'if' statements to create conditional events for when the code will execute.

```
set var timer running to TRUE
```

```
set var timer running to FALSE
```

```
? if var timer running = TRUE
```

### Your blocks

Use the **get** command to detect the parameter of an object's property.

```
get speed
```

This block will ask the computer to detect the speed of an object.

Combine the **get** block with a **set** block to pass the parameter on to another object.

```
sheep set speed to dog get speed
```

In this code, the sheep will move at the same speed as the dog.

Combine the **get** block with a **set** block and an **operator** to detect an object's parameter and change it before it is passed on to another object.

```
sheep set speed to dog get speed + 1
```

In this code, the sheep will move slightly faster than the dog.

### Operator

A block that performs a calculation, comparison, logic or manipulation.

### Boolean Expression

A logical statement that is either true or false.

### Variable

An object used to store information.

### User Input

A piece of information given by the user when they are asked by the computer.

### Detect

When the computer checks the parameter of an object's property.

### Parameter

The numbers used to describe an object's properties.

### Property

Something about an object that can be represented by a number.

## Sticky Knowledge

## Subject Specific Vocabulary