

3 Writing a class – Part 1

Name: _____ Class: _____ Date: _____

Vocabulary

Write each word three times.

English

Write it 3 times (English)

class

constructor

Recall

In earlier sheets you **used** objects like `String`. Now you will **build your own**:

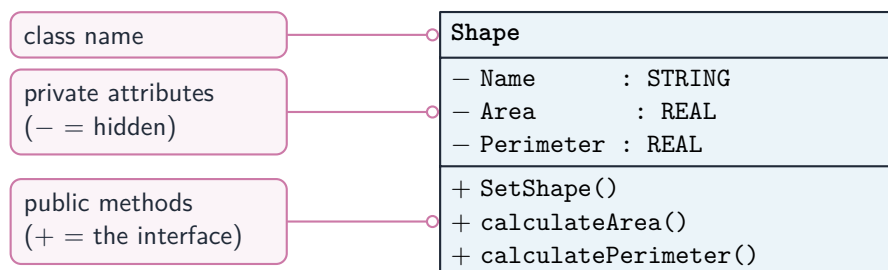
- A `String` is one type of object; you can design your own types too.
- A class is like a blueprint for making objects.

This sheet lines up how to write a class. Each idea has a worked example.

New ideas

■ 1 A class is a blueprint

A **class** is a blueprint that describes what its objects hold and do. From one class you make many objects.



■ 2 Fields

A class's **fields** are its data – the values each object stores:

```
public class Student {  
    private String name;  
    private int score;  
}
```

■ 3 The constructor

A **constructor** sets up a new object when you use **new**:

```
public Student(String n, int s) {  
    name = n;  
    score = s;  
}
```

■ 4 Making objects

```
Student a = new Student("Amy", 80);
```

Each **new** builds a separate object with its own **name** and **score**.

Watch out: a class is only a **blueprint** – it does nothing by itself. You must create an object with **new** before you can use it, just as a house plan is not a house.

Practice

Try these in order. The methods are all above.

2.1 State the difference between a class and an object. [2]

2.2 State what the “fields” of a class are. [1]

2.3 State what a constructor does. [2]

2.4 Write a line that creates a **Student** object called **b** with name **"Ben"** and score **70**. [2]

2.5 Explain why you can make many different objects from one class.

[2]
