iPrimary Computing

Year 6

TOPICS:

PROBLEM SOLVING, PROGRAMMING &

DEVELOPMENT

Teacher:

Ms Deepthie Fernando
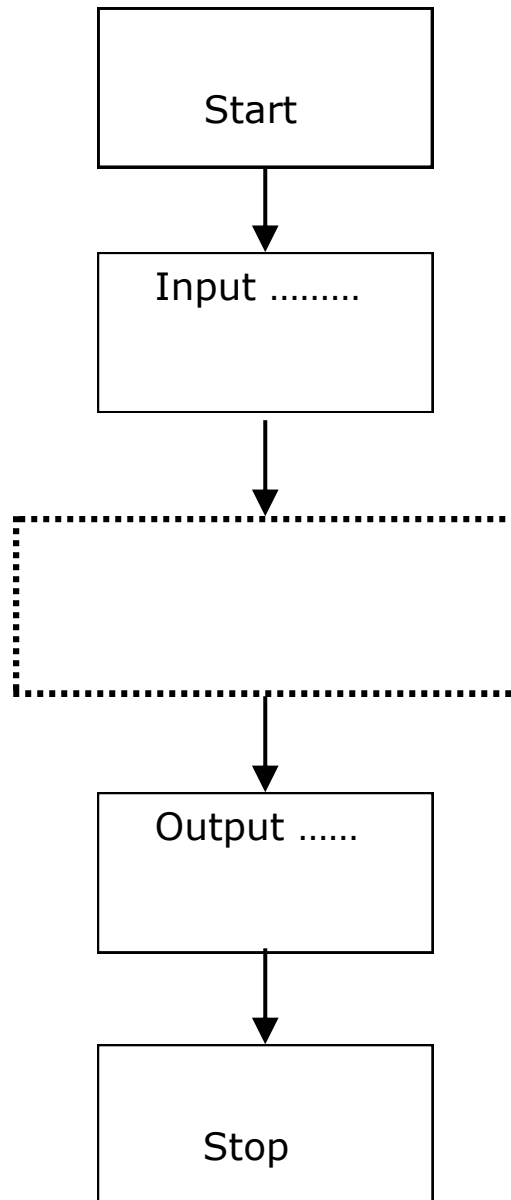
1.   A program asks a student to input:

- Name of the plant

- Number of leaves

- Average height

- Whether the plant was watered today

Complete the data table by giving the data type that should be used for each input.

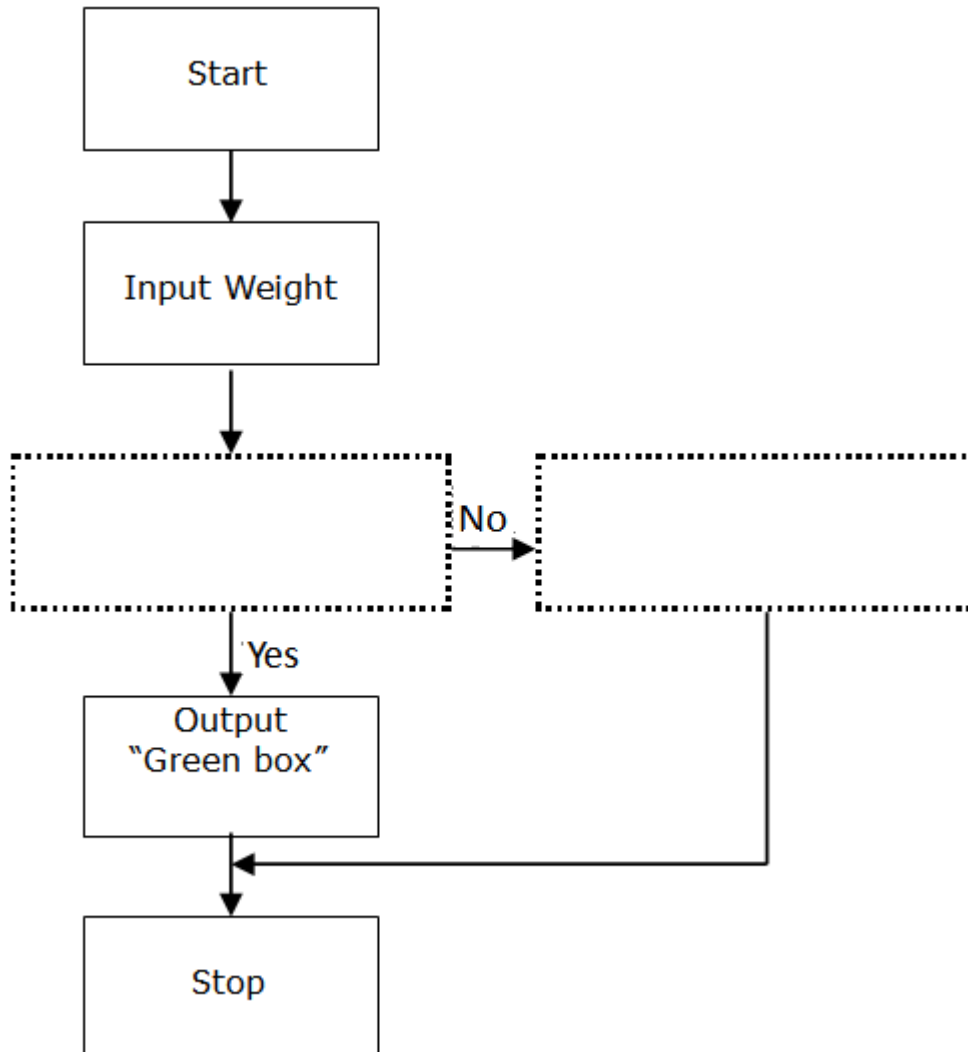| (a)	name of the plant	
(b)	number of leaves	
(c)	average height	
(d)	watered today?	

(Total for Question 1 = 4 marks)

2.   This flowchart calculates the perimeter of a square.

Complete the flowchart.

```
┌─────────────────┐
│                 │
│      Start      │
│                 │
└─────────────────┘
         │
         ▼
┌─────────────────┐
│  Input ………      │
│                 │
│                 │
└─────────────────┘
         │
         ▼
┌ ─ ─ ─ ─ ─ ─ ─ ─ ┐
                   
│                 │
                   
└ ─ ─ ─ ─ ─ ─ ─ ─ ┘
         │
         ▼
┌─────────────────┐
│  Output ……      │
│                 │
│                 │
└─────────────────┘
         │
         ▼
┌─────────────────┐
│                 │
│      Stop       │
│                 │
└─────────────────┘
```

(Total for Question 2 = 2 marks)

3.   This flowchart checks the weight of bunches of grapes that would go to a
        Green box if it is over 1kg.

```
        ┌─────────────────┐
        │      Start       │
        └─────────────────┘
                 │
                 ▼
        ┌─────────────────┐
        │   Input Weight   │
        └─────────────────┘
                 │
                 ▼
   ┌·················┐      ┌··················┐
   ┊                 ┊ No   ┊                  ┊
   ┊                 ┊─────▶┊                  ┊
   └·················┘      └··················┘
            │ Yes                    │
            ▼                        │
    ┌──────────────┐                 │
    │    Output     │                │
    │  "Green box"  │                │
    └──────────────┘                 │
            │◀───────────────────────┘
            ▼
    ┌──────────────┐
    │     Stop      │
    └──────────────┘
```

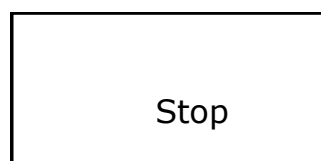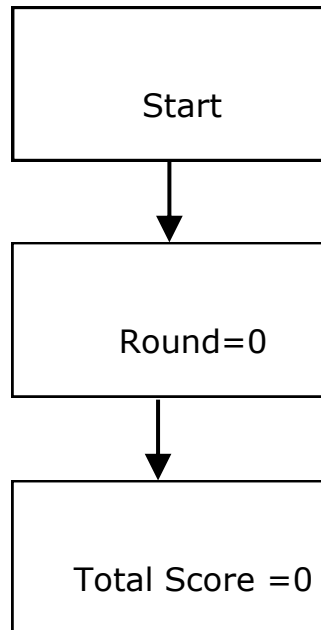Complete the flowchart.

                                     (Total for Question 3 = 2 marks)

4.   A program calculates and displays the average speed of a runner after

four rounds.

Create a flowchart to show the steps in this program.

```
┌─────────────────┐
│                 │
│      Start      │
│                 │
└─────────────────┘
         │
         ▼
┌─────────────────┐
│                 │
│     Round=0     │
│                 │
└─────────────────┘
         │
         ▼
┌─────────────────┐
│                 │
│  Total Score =0 │
│                 │
└─────────────────┘


┌─────────────────┐
│                 │
│      Stop       │
│                 │
└─────────────────┘
```

(Total for Question 4 = 4 marks)

5

Thank You!