

## Bee-Bot Project

### Session 2

**Subject** - Maths

**Topic** – Number Recognition and Counting up to 5

**Target group** – Kinder2

**Time** – 45mins

### Resources

- ✓ PowerPoint Presentation - ***Session 2 Numbers 1 to 5.pps***
- ✓ 2 Bee-Bots
- ✓ 2 transparent plastic mats
- ✓ 2 card envelopes
- ✓ 2 sets of cards with numbers and pictures from 1 to 5 - ***Cards for Bee-Bot Mat - Numbers 1-5.pdf***
- ✓ 2 worksheets – ***Worksheet1 Numbers.pdf*** and ***Worksheet2 Numbers.pdf***
- ✓ 2 TuxPaint activities – ***Session2a.png*** and ***Session2b.png***

### Objectives

Children will learn:

- ✓ number recognition (1 to 5)
- ✓ to count on from 1 to 5
- ✓ to program the Bee-Bot to spot the right number/picture
- ✓ to use the flower stamp tool in TuxPaint
- ✓ to use the ABC text tool in TuxPaint

### Presentation of topic

- ✓ The session starts off with the PowerPoint presentation - ***Session 2 Numbers 1 to 5.pps***. The first slide represents the countryside and this should help the children to talk about what they can find in the countryside (flowers, bees, butterflies etc.).
- ✓ On the following 5 slides, the children are presented with pictures of flowers. They have to count how many flowers they are being presented with on the slide. The answer given can be checked with the number that is presented on the next mouse click. Numbers from 1 to 5 are introduced through this method.
  - Example: They see 2 flowers on the slide, children have to count the flowers they can see and then check their answer with the number that appears on screen. The teacher may solicit the children to represent the answer using their fingers or even draw it in the air. If the answer given is correct the children are rewarded with an applause otherwise they are encouraged to give it another try.
- ✓ The children are encouraged to continue watching the presentation Slides 7-12. This time, they will practice counting by following a bee flying over the flowers. The children may again be encouraged to count the number of flowers presented, before moving to the actual exercise where the children have to pay attention to the bee counting on how many flowers it did actually fly. The answer can be checked with the answer that is presented following the question mark.
  - Example: Children look at the slide on which there are 5 flowers. Then they see the bee flying over on 3 flowers and they have to count on how many flowers it actually did fly to.

## Group Activities

- ✓ Following the presentation of the topic, the class can be divided into groups where they will be actively engaged in various activities that can be carried out related to this topic. Activities suggested will focus on the use of the Bee-Bots. Alternative activities can also be carried out. On-screens to be worked on the classroom desktops and worksheets are also being suggested. It is recommended that the different groups rotate from one activity to another for all the children to have a chance at handling and programming the Bee-Bot. In this way children will have the opportunity to practice what they have learnt using various methods and technologies.
- ✓ Slides 13-18 from this session's presentation ***Session 2 Numbers 1 to 5.pps*** ought to help the children remember how to program the Bee-Bot to move from one position to another.
  - Activity 1: Bee-Bot activity - ***Cards for Bee-bot Mat - Numbers 1-5.pdf***  
The children are presented with a mat on which they can see pictures of flowers. On every card they can see various flowers (on 1 card 3 flowers, on another 5 flowers etc.). Children have to randomly pick a card from the envelope on which they can see a number. They have to name the number they have picked up and find on the mat the corresponding card with flowers. The children are then to program the Bee-Bot to follow a route which will get it onto the correct card.
  - Activity 2: Bee-Bot activity - ***Cards for Bee-Bot Mat - Numbers 1-5.pdf***  
The children are presented with a mat on which they can see the numbers from 1 to 5. Children have to randomly pick a card from the envelope on which they can see flowers. They have to count the number of flowers they have picked up and find on the mat the corresponding card the number written. The children are then to program the Bee-Bot to follow a route which will get it onto the correct card.
  - Activity 3: Worksheet - ***Worksheet1 Numbers.pdf***  
The children are given a worksheet on which they have numbers from 1 to 5 on 1 side and pictures of flowers on the other side. Children have to colour in the number 1 and then colour only 1 flower from the set of flowers given in the row. (Example; Colour the number 2 red and then colour 2 red flowers in the 2<sup>nd</sup> row of flowers).
  - Activity 4: Worksheet - ***Worksheet2 Numbers.pdf***  
The children are given a worksheet on which they have numbers from 1 to 5 on 1 side and pictures of flowers on the other side. Children are to match the number to the correct picture.
  - Activity 5: On-screen - ***Session2a.png***  
Using TuxPaint the children are to work out an on-screen using the ABC text tool. Children are presented with boxes and in these boxes flowers have been stamped. Children have to count the number of flowers in a particular box and use the ABC text tool to stamp the corresponding number.

○ Activity 6: On-screen - ***Session2b.png***

Using TuxPaint the children are to work out an on-screen using the flower stamp tool. Children are presented with boxes and in those boxes they have a number. Children have to use the flower stamp tool to stamp the correct number of flowers in those boxes.

**Conclusion**

- ✓ To summarise what has been learnt, the children are encouraged to follow the last part of the presentation ***Session 2 Numbers 1 to 5.pps*** Slides 19-24. The class is presented with a number of slides with images of flowers. The children are to count the number of flowers being presented on each slide and verify their answer with the answer that is given on the next mouse click.