## purple

## Computing

 Scheme of Work

Unit 1.3 - Pictograms


Year Group: 1
Number of
Lessons: 3

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## Introduction

This unit is an introduction to pictograms and looking at how they can be used to represent data. As with all units, you may want to adapt the content to suit topics being studied in the classroom.

## Year 1 - Medium-term Plan

| Lesson | Aims | Success Criteria |
| :---: | :--- | :--- | :--- |
| $\underline{1}$ | To understand that data can be <br> represented in picture format. | •Children can discuss and illustrate the transport used <br> to travel to school. <br> Children can contribute to the collection of class <br> data. <br> Children have used these illustrations to create a <br> simple pictogram. |
| $\underline{\mathbf{2}}$ | To contribute to a class pictogram. | •Children can contribute to a class pictogram. <br> Children can discuss what the pictogram shows. |
| $\underline{3}$ | To use a pictogram to record the <br> results of an experiment. | - Children can collect data from rolling a die 20 times <br> and recording the results. <br> Children can represent the results as a pictogram. |

## Lesson 1

## Aims

- To understand that data can be represented in picture format.


## Success criteria

- Children can discuss and illustrate the transport used to travel to school.
- Children can contribute to the collection of class data.
- Children have used these illustrations to create a simple pictogram.


## Resources

- 2Connect tool within Purple Mash.
- Lesson 1 - Worksheet 1; each sheet should be cut up making enough cards for six children's data.


## Activities

1. Share the learning objectives and success criteria with the children.
2. With the children, discuss different forms of transport.
3. Collate these on the whiteboard. Alternatively, you could create a concept map in 2Connect.

4. Discuss with the children when they may use these different forms of transport, e.g. aeroplane for holidays, walking to go to the park, car to visit family etc.
5. How do children travel to school? Discuss with the children how we could record the answers, e.g., the children could put their hands up and we could count. Explain that a pictogram is another way to do this.
6. Hand out the cards from Worksheet 1 to the children and ask them to draw how they travel to school.
7. Collate the cards and create a pictogram. Include a title that explains what the pictogram shows.
8. Interrogate the data - Which was the most popular method? Which was the least popular?

## Lesson 2

## Aims

- To contribute to a class pictogram.


## Success criteria

- Children can contribute to a class pictogram.
- Children can discuss what the pictogram shows.


## Resources

- 2Count Pictogram - Favourite Fruits. To open this, open the 2Count tool then click on the New File button
 and select the 'Fruit' file from the list of options:


Click on the fruit at the bottom of the pictogram if you want to change the images to something else.

- Pictures of fruit - Lesson 2 - Worksheet 1. These may need to be enlarged.


## Activities

1. Share the learning objectives and success criteria with the children. Recap the learning from the last lesson.
2. Explain that, this time, the children will be producing a class pictogram which will be a computer version rather than a paper one.
3. Hold up pictures of fruit. These can either be the paper printouts or the ones on the computer screen. The children look at them and then talk to their partner. Which fruits do they like and which don't they like?
4. Open the 2 Count file - Fruit.
5. Show the children how they can add their favourite fruit by either clicking on the rectangle above their favourite fruit or clicking on the + sign next to their favourite fruit.

6. When the children have finished adding their data, look at the results and ask the children questions to interrogate the chart.

## Lesson 3

## Aims

- To use a pictogram to record the results of an experiment.


## Success criteria

- Children can collect data from rolling a die 20 times and recording the results.
- Children can represent the results as a pictogram.


## Resources

- 2Count - Dice file; this is opened in the same way as the fruit file in the last lesson. This can be set as a 2do for children by saving it in your work folder and then clicking on the Share button (the globe symbol) to set as a 2 do .
- Lesson 3 - Worksheet 1 - Dice numbers rolled.
- Dice (1 per child/pair).


## Activities

1. Share the learning objectives and success criteria with the children. Recap the learning from the last lesson.
2. For the next part of the lesson, the children will carry out an investigation and then populate a pictogram. The activity uses the 2Count - Dice file but the activity could also be linked to an area of curriculum study.
3. Handout the worksheet. The children roll a die 20 times and then record the numbers that they rolled. Some children may need to work with the support of an adult.
4. The children should use their results to make a 2Count pictogram.

|  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 5 | 5 | 3 | 2 | 2 |
| 6 | 6 | 4 | 4 | 1 |
| 3 | 1 | 5 | 4 | 2 |
| 4 | 4 | 3 | 2 | 1 |


5. The children should then save the files to their work.
6. The children's pictograms can then be shared via a display board or printed off for display.

## How I Travel to School

$\square$
Name:
How I Travel to School
$\square$
Name: $\qquad$
How I Travel to School
$\square$
Name: $\qquad$


Name: $\qquad$

Name:

## How I Travel to School

Name:


Name $\qquad$ Date $\qquad$

## Roll a die 20 times and then record the numbers thrown.

$\square$
$\square$
$\square$
$\square$

## Assessment Guidance

The unit overview for year 1 contains details of national curricula mapped to the Purple Mash Units. The following information is an exemplar of what a child at an expected level would be able to demonstrate when completing this unit with additional exemplars to demonstrate how this would vary for a child with emerging or exceeding achievements.

## Assessment Guidance

| Emerging | With support, children can organise a limited set of data into a physical pictogram (Unit 1.3 <br> Lesson 1. Point 6/7) and a virtual pictogram (Unit 1.3 Lesson 2. Point 5/6). With support, <br> children use this data to answer given questions. Working as a group, children can create, <br> store, retrieve and share their pictograms (Unit 1.3 Lesson 3. Point 4, 5 and 6). |
| :--- | :--- |
| Expected | Children can collate and organise class data into a physical pictogram (Unit 1.3 Lesson 1. Point <br> $6 / 7) ~ a n d ~ a ~ v i r t u a l ~ p i c t o g r a m ~(U n i t ~ 1.3 ~ L e s s o n ~ 2 . ~ P o i n t ~ 5 / 6) ~ C h i l d r e n ~ c a n ~ t h e n ~ i n t e r r o g a t e ~ t h i s ~$ |
| data to answer given questions. Children can create, store, retrieve and share their own |  |
| pictograms (Unit 1.3 Lesson 3. Point 4, 5 and 6). |  |
| Most children will be able to save their pictograms, using a memorable file name, to their own |  |
| personal space on Purple Mash and understand that this can be retrieved later Unit 1.3 |  |
| Lesson 3 Point 5. |  |
| Children can represent simple collected data in an appropriate pictogram by using 2Count |  |
| (Unit 1.3. Lesson 3). |  |
| Most children can collate data from rolling a die and record the results within 2Count. They |  |
| demonstrate that they can use 2Count to group collated data into pictorial representations |  |
| (Pictograms) Unit 1.3. Lesson 3 Points 3 \& 4). |  |

