

# Interpret Picture Graphs using the Language of Chance.

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## Differentiate and Assess

Not every student will be ready to investigate this concept at this Level and so we will need to differentiate to ensure every student is learning at their leading edge. Select the Differentiate button on this screen.

## Integrate

Every mathematical concept is integrally related to other mathematical concepts. Teaching and learning related concepts simultaneously develops deep relational understanding. Select the Integrate button on this screen.

## Intervene

Some students may not yet be ready to investigate this concept at any Level, and so we will need to provide some intervention. Select the Intervention button on this screen.

# INTERPRET PICTURE GRAPHS USING THE LANGUAGE OF CHANCE.

## EXPLICIT TEACHING PLAN OVERVIEW PAGE

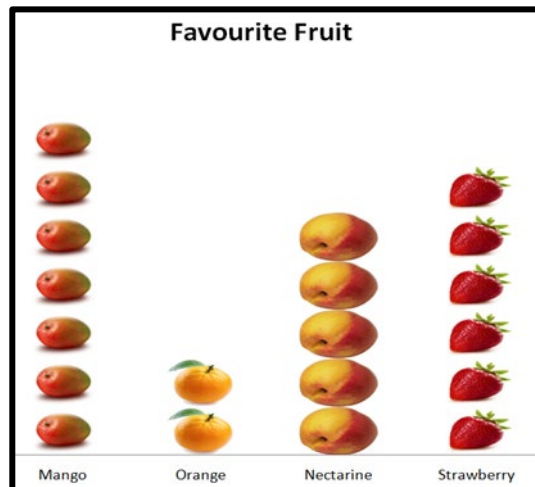
THIS PAGE IS A SUMMARY OF THE EXPLICIT TEACHING PLAN, INCLUDING STRATEGIC QUESTIONS, AND DESCRIBING THE SEQUENCE WHICH WILL OCCUR OVER MULTIPLE LESSONS.

RESOURCES: PICTURE GRAPH, PENCIL, PAPER

### WHAT COULD WE DO?

Children:

- ask questions and make statements about a picture graph using the language of chance, for example,



### WHAT LANGUAGE COULD WE USE TO EXPLAIN AND ASK QUESTIONS?

Children

- ask one another questions about asking questions and make statements about a picture graph using the language of chance, for example:
  - What questions could we ask about this picture graph?
  - Which fruit is most popular?
  - Which fruit is the least popular?
  - Which column is the shortest?
  - Is the column of with the least popular fruit the shortest?
  - Which fruit is more popular than strawberries?
  - What fruit is it possible to find on this graph?
  - What fruit is it impossible to find on this graph?
  - How many people like mangos best?
  - What is the chance that we will find a child in this graph who likes mangoes best?
- What statements could we make about this picture graph?

# INTERPRET PICTURE GRAPHS USING THE LANGUAGE OF CHANGE.

## EXPLICIT TEACHING PLAN

FULL EXPLICIT TEACHING PLAN, EMBEDDING DEEP RELATIONAL UNDERSTANDING, METALANGUAGE, AND QUESTIONS THAT MAY BE USED OVER MULTIPLE LESSONS.

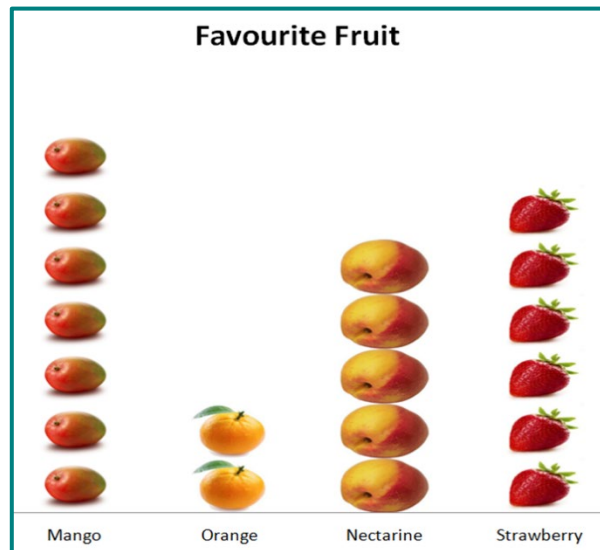
### WHAT COULD WE DO?

Children think about, talk and listen to a friend about, then have the opportunity to share what they already know.

Record, for example, 'data'

Record, for example, 'data is information'

Display some data displayed in a [picture graph](#), for example,



### WHAT LANGUAGE COULD WE USE TO EXPLAIN AND ASK QUESTIONS?

- ▶ Today brings an investigation about chance and data.
- ▶ What do you know about chance and data?
- ▶ Talk about chance and data with a friend.
- ▶ Is anyone ready to share what they are thinking about chance and data?
  
- ▶ We've investigated collecting data.
- ▶ And we found that data is another word for information.
- ▶ We found that when we use a computer or play a computer game, we save the data.
- ▶ We investigated how we could collect data by asking questions.
- ▶ And we found that we could display data in picture graphs.
  
- ▶ Here is some data displayed in a picture graph about favourite fruit.
- ▶ What question do you think was asked?
- ▶ Do you think people were asked 'what is your favourite fruit?'?
- ▶ How is the data represented?
- ▶ Is the data represented using a picture graph?
- ▶ Do you think we could ask some questions about this data!
- ▶ Could we use chance language to ask the questions? Let's investigate!

Ask, and allow children to ask questions about the data using the language of chance, for example, least, most, possible, impossible, certain.

- ▶ Which fruit is most popular?
- ▶ Are mangos most popular?
- ▶ How do you know?
- ▶ Is the column of mangos the tallest?
- ▶ Which fruit is the least popular?
- ▶ Are oranges the least popular?
- ▶ How do you know?
- ▶ Is the column of oranges the shortest?
- ▶ Which column is the second tallest?
- ▶ Is the column of strawberries the second tallest?
- ▶ Are strawberries the second most popular fruit?
  
- ▶ Which fruit is more popular than oranges but less popular than strawberries?
- ▶ Are nectarines more popular than oranges but less popular than strawberries?
- ▶ Which fruit is less popular than mangos but more popular than nectarines?
- ▶ Are strawberries less popular than mangos but more popular than nectarines?
- ▶ What fruit is it possible to find on this graph?
- ▶ Is it possible to find mangos, oranges, nectarines and strawberries on this graph?
- ▶ What fruit is it impossible to find on this graph?
- ▶ Is it impossible to find apples on this graph?
- ▶ Is it impossible to find peaches on this graph?

- ▶ How many people like nectarines best?
- ▶ Do 5 people like nectarines best?
- ▶ How many people like oranges best?
- ▶ Do 2 people like oranges best?
- ▶ What is the chance that we will find a child in this graph who likes mangos best?
- ▶ Is it likely that will find a child in this graph who likes mangos best?
- ▶ What is the chance that we will find a child in this graph who likes oranges best?
- ▶ Is it unlikely that we will find a child in this graph who likes oranges best?
- ▶ What is the chance that we will find a child in this graph who likes apples best?
- ▶ Is it impossible that we will find a child in this graph who likes apples best?

# Favourite Fruit

Picture Graph [back](#)

