KS3 MATHS

- Activity 1: Ride Visitor Percentages
- Activity 2: Ticket Sales & Money Problem
- Activity 3: Data Handling & Graphs

ACTIVITY 1

RIDE VISITOR PERCENTAGES

SCENARIO- At the end of a busy day at Adventure Island, the park managers reviewed how many visitors went on some of the most popular rides. The data collected showed that:

- 120 visitors rode the Time Machine.
- 80 visitors went on the City Wheel.
- 60 visitors experienced Vertigo.

You will use this information to answer the following percentage and data-handling questions.

QUESTIONS-

1. Add together the total number of riders for all three attractions. What percentage of these visitors rode the Time Machine? ☐
2. If the City Wheel had 20% more visitors, how many visitors would that be in total? Show your working. ☐
3. Combine the number of visitors from the Time Machine and Vertigo. What percentage of the total number of riders do they represent? ☐
4. If the total number of park visitors that day was 400, how many visitors went on other rides not listed above? Show how you worked this out. ☐
5. Using the original visitor numbers (120, 80 and 60), create a pie chart to represent the visitor distribution. This should be completed after your visit. ☐

Activity 2

Ticket Sales & Money Problems

Scenario- Adventure Island is selling different ticket options to visitors during a school trip day. Pupils can choose to buy a wristband for unlimited rides, a snack pack, or a special combo deal. The prices are as follows:

- A wristband costs £8.
- A snack pack costs £5.
- A combo deal (wristband + snack pack) costs £12.

You will use this information to calculate income and solve money problems.

Questions-

1. Calculate the total income if 200 pupils buy wristbands. Show your working.

2. If 50 pupils buy the combo deal, how much money is collected in total?

3. A school group buys 75 wristbands and 60 snack packs. What is the total cost? Show your calculations clearly.

Activity 2

Ticket Sales & Money Problems

QUESTIONS-

4. If 25% of 320 visitors buy a snack pack, how much revenue is made from snack pack sales?

5. Create a table showing the ticket income from wristbands only for 50, 100, 150 and 200 visitors.

Number of Visitors	Price per Wristband	Total Income (£)
50	£8	
100	£8	
150	£8	
200	£8	

Activity 3

Data Handling & Graphs

Scenario-

At the end of another busy day at Adventure Island, staff recorded the number of visitors who went on five popular rides.
The results are shown below:

- Time Machine: 60 visitors
- Vertigo: 80 visitors
- City Wheel: 120 visitors
- Carousel: 90 visitors
- Skydrop: 50 visitors

You will use this data to create graphs and answer questions.

QUESTIONS-

1. Create a bar chart to represent the number of daily visitors for each ride.
   Remember to label your axes clearly and include a suitable scale.

2. Which ride has the highest number of visitors? Which ride has the lowest number of visitors?

Activity 3

Data Handling & Graphs

QUESTIONS-

3. Calculate the average (mean) number of visitors per ride. Show your working.

4. If visitor numbers increase by 10% the next day, calculate the new total for each ride.

5. Use the data to create a line graph showing visitor numbers. Make sure your graph has a title, labelled axes and an appropriate scale.