**Name: _____**

# 'Event Planner'

### A 'Mathematics in Context' Investigation Project – Years 5 to 6

*This resource was developed in collaboration with staff from Greta Public School, NSW*

## BACKGROUND

You have an event planning business and you have been given the task of planning **one** of the following events:

a) A friend's wedding reception;

b) A Year 6 Farewell event;

c) A 'significant' birthday party e.g. 18th, 21st, 40th or 50th; or

d) A 'corporate event', such as a launch for a new company or product.

Your task is to prepare a comprehensive plan and quote that outlines the following:

1. A **floor and seating plan** for **between 50 and 250** guests

2. A menu that will feed your number of guests – this will include the **quantities** of food, with food that is appropriate for the event.

3. A **monetary quote** that is **also expressed per head** for your guests.

4. A **timed playlist** and **event itinerary** (programme) for your event (extension/optional).

You will need to use **digital technologies** such as a spreadsheet, word processed tables and/or a digital calendar to present your work.

**PART 1: Design a Venue Floorplan**

> *ACMMG137 - Solve problems involving the comparison of lengths and areas using appropriate units.*

Develop a floorplan and a seating plan for your event.

Your floorplan should include:

a) **A diagram of the venue or hall.** Your hall may be either rectangular or a composite shape *(What is this? Check out https://www.khanacademy.org/math/basic-geo/basic-geo-area-and-perimeter/area-trap-composite/e/area-of-quadrilaterals-and-polygons),*

   In your layout diagram, you must show **perimeter measurements** and calculate the **total area** of the space to be used for your event, expressed in correct metric units.

b) **A seating and table arrangement within the space.** Your seating arrangement must allow all the guests to sit for a meal.

   Your seating plan must include the **number of tables** and the **number of seats at each table** to sit guests, and provide a **total seating capacity**.

c) A diagram of the **size and dimensions for a dancefloor** that will fit both a DJ booth and **room for up to half the guests to dance** at one time.

   Assume that each guest will use one square metre (1 m$^2$) to shake their funky moves on the dancefloor.

## PART 2: Catering

a) You are to develop a **Catering Menu** for your selected event. Catering includes both **food** and **non-alcoholic beverages**.

b) From this menu, you must then create a **Catering Budget** that shows the amount each dish (and drinks) will cost per head, multiplied by the total number of guests.

A spreadsheet could help you here. On your spreadsheet you could have the option of including the ingredients for each of the dishes, to make your catering Budget even more detailed and realistic.

## PART 3: Costing and Quote

Create a **detailed Costing of the Event** you have chosen and write up a **'Quote'**.

In your overall costing you should add up all of the following:

a) **Venue** cost / hire

b) **Paying yourself** (as the Event Planner) *Be realistic here! Remember, you are competing with other Event Planners to get the business and so you don't want to price yourself too far above your competition!*

c) **DJ and music**

d) **Catering** – include…  *Food and drink* (see your Catering Budget);

 *Hire of plates and glasses*;

 *Kitchen and waitstaff* (How many will you need of each? What will you pay them?)

e) **Decorations**

f) Any **other expenses** you'd like to include – *eg. a photographer, lucky door prizes…*

Once you have added up all your expenses (again, a spreadsheet will help!), **calculate the final price per guest** at the event.

*This would be the amount you would **'quote'** the event hosts for each person attending the event.*

**Write up the Quote for the Event Host.**

**EXTENSION** *(Optional)* **- PART 4:**

**Itinerary and Music**

> **ACMNA128** - *Add and subtract decimals, with and without digital technologies, and use estimation and rounding to check the reasonableness of answers.*
> **ACMMG139** - *Interpret and use timetables.*

You are develop an **Itinerary** or **Programme** for your event, allowing for time for dancing, formal presentations or speeches.

You could use a good old spreadsheet again for this! Or, you may use a calendar program - such as *Microsoft Outlook* or *Google Calendar* – to do this part of your project).

a) Start with a **detailed Music Playlist** presented in a table or graph, including song titles and timing for each 'track' (this information can be found on the Internet via your web browser). Your music should suit the time of the event - for example, background music during eating time, dance music, end of evening music.
   Add all the times together to work out how long each music session will take during the event. ***What is the average song time for your event?***

b) **Put together an itinerary** for the event so that all parts
   of the event are carefully timed out, for example:

   > *Introduction and canapes – 15 minutes*
   > *Welcome - 10 minutes*
   > *Music …*
   > *Dancing …*
   > *Official speeches…*
   > *More dancing …*

c) **Summarise** your Itinerary in a simple **Programme** for your staff and guests.

**'EVENT PLANNER' PROJECT CHECK LIST**

I have completed:

☐     **Part 1** - A floor and seating plan

☐     **Part 2** - A menu and catering budget

☐     **Part 3** – A detailed Quote (including Price per Head)

☐     **Part 4** – *(optional)* A timed Music Playlist and Event Itinerary

**Notes and Useful Resources:**

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**CHOOSE MATHS**

### *Event Planner* 'Mathematics in Context' Investigation Project:

### Grading Rubric, Years 5 & 6 *(Australian Curriculum, Mathematics)*

| Achievement Grade | Achievement Performance Description |
|---|---|
| **A**<br><br>Comprehensively working at above Grade 5-6 level | • Plans and presents detailed solutions to problems involving multiplication and division of large numbers by one- or two-digit numbers in the planning of catering for a group event:<br>  ✓ uses efficient mental and accurate written strategies (showing working); and<br>  ✓ uses several digital technologies (eg. spreadsheets, word processing and/or electronic publishing)<br>• Thoroughly investigates and correctly applies the order of operations within the simulated context of planning an event<br>• Clearly and articulately describes and represents listed mathematical situations (floor space and seating plan, menu and costs, music planning etc.) in novel and visually effective ways using precise mathematical terminology and correct conventions<br>• Capably evaluates, selects and applies efficient problem-solving strategies, including the use of a range of digital technologies, in undertaking investigations with a consistently high degree of accuracy<br>• Gives mathematically and logically valid reasons for supporting a more efficient solution over other less efficient solutions, and successfully applies this approach to extend the mathematical situation presented in this task. |
| **B**<br><br>Thoroughly working at Grade 5-6 level | • Plans and presents sound solutions to problems involving multiplication and division of large numbers by one- or two-digit numbers in the planning of catering for a group event:<br>  ✓ uses efficient mental and accurate written strategies (showing working); and<br>  ✓ uses several digital technologies (eg. spreadsheets, word processing and/or electronic publishing)<br>• Correctly applies the order of operations within the simulated context of planning an event<br>• Clearly describes and represents listed mathematical situations (floor space and seating plan, menu and costs, music planning etc.) in several ways using accurate mathematical terminology and correct conventions<br>• Capably selects and applies efficient problem-solving strategies, including the use of digital technologies, in undertaking an investigation with a high degree of accuracy<br>• Gives mathematically valid reasons for supporting more efficient solutions over other less efficient solutions |
| **C**<br><br>Satisfactorily working at Grade 5-6 level | • Finds solutions to problems involving multiplication and division of large numbers by one- or two-digit numbers in the planning of catering for a group event:<br>  ✓ uses mental and written strategies (showing working); and<br>  ✓ uses several digital technologies (eg. spreadsheets, word processing or electronic publishing)<br>• Satisfactorily investigates and applies the order of operations within the simulated context of planning an event<br>• Satisfactorily describes and represents two or more mathematical situations (eg. floor and seating plans, menu costs) in several ways using mathematical terminology and some conventions<br>• Competently selects and applies appropriate problem-solving strategies, including the use of digital technologies, in undertaking investigations with a sound degree of accuracy<br>• Gives a mathematically valid reason for supporting one possible solution over another possible solution |
| **D**<br><br>Working at basic Grade 5-6 level, sometimes with support | • Finds some solutions to problems involving multiplication and division of large numbers by one- or two-digit numbers in the planning of catering for a group event:<br>  ✓ uses a written strategy (showing working); and<br>  ✓ uses at least one digital technology to present the solution (eg. a spreadsheet, word processing or electronic publishing)<br>• Works on applying the order of operations within the simulated context of planning an event<br>• Partially describes or represents a mathematical situation using limited mathematical terminology and some conventions<br>• Selects and applies limited or inefficient problem-solving strategies, and basic use of digital technologies in undertaking investigations with a variable degree of accuracy<br>• Gives imprecise or mathematically invalid reasons for supporting the solution, with a limited degree of accuracy |
| **E**<br><br>Experiencing difficulty / working with support at or below Grade 5-6 level | • Works on incomplete solutions to problems involving multiplication and division of large numbers by one- or two-digit numbers in the planning of catering for a group event:<br>  ✓ uses a partially written strategy with incomplete working; and / or<br>  ✓ experiences difficulty with digital technology to present the solution (eg. a spreadsheet, word processing or electronic publishing)<br>• Experiences difficulty with applying the order of operations within the simulated context of planning an event<br>• Experiences difficulty with describing or representing mathematical situations due to limited grasp of mathematical terminology or conventions<br>• Needs direct assistance to apply simple problem-solving strategies or basic digital technologies to undertake the investigation, and with a low degree of accuracy<br>• Fails to provide reasons for supporting a solution, with a low degree of accuracy |