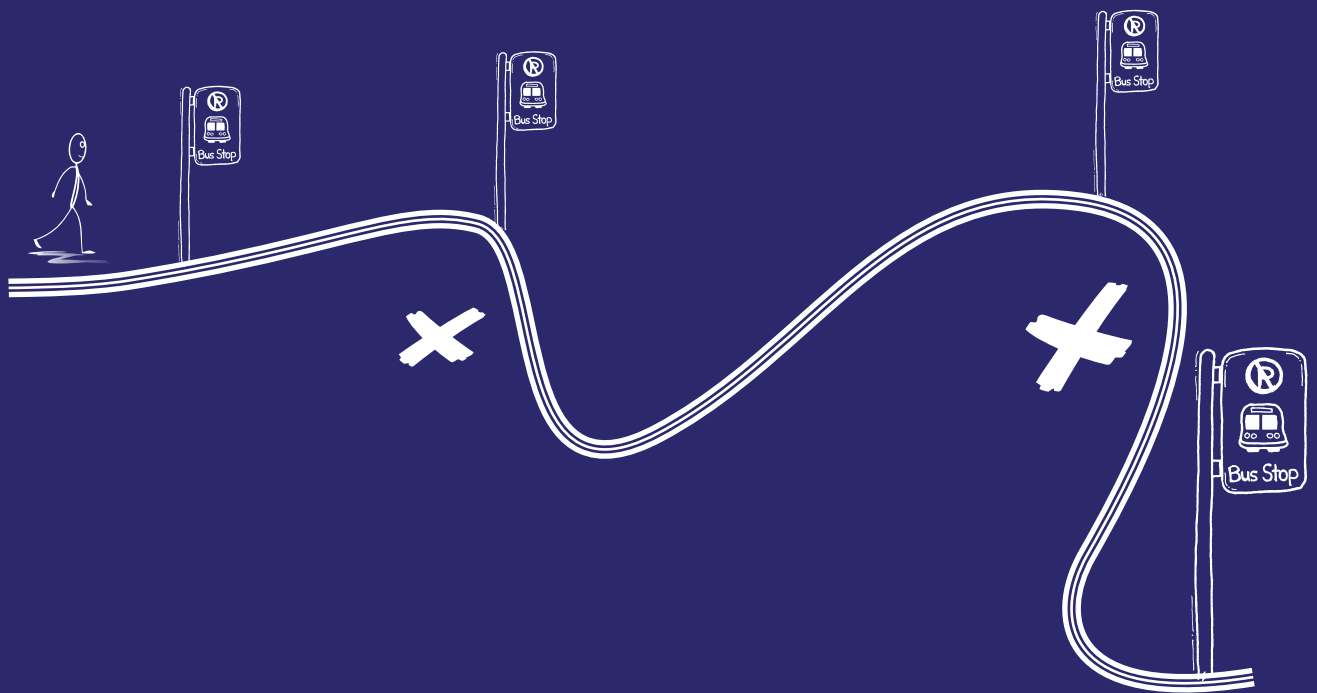




# Metro Magic Mission

An inquiry learning programme for Year 9-11 students based on the popular TV series, 'The Amazing Race', and making use of public and active transport modes.





This strategic activity has been developed to provide an opportunity for junior secondary students to exercise their planning skills and make use of the Metro services as provided by Environment Canterbury in the greater Christchurch metropolitan area.

The activity can be run either solely as an in-school activity or include the actual running of a 'Mission' depending of the time available and the nature of the group undertaking the activity.

<b>Metro Magic Mission Year 9-10</b>	<b>Planned By:</b> _____ (Teacher working with this)
<b>Sub-title: The Amazing Race</b>	<b>Topic: Team building/Problem Solving</b>
<p><b>Key Competencies:</b></p> <p><b>Thinking:</b> The students will use both creative and critical thinking processes to make sense of resource material, information and ideas. They will apply these processes to develop a 'race' or 'mission' plan that meets the desired outcomes.</p> <p>They will also apply metacognition to their post-mission reflection.</p> <p><b>Using language, symbols and text:</b> students will work with and make meaning of maps, timetables, brochures and online resources to help them develop a 'race/mission' format. They will engage with written and visual forms of texts that will include new symbols and terms in both a paper and online format.</p> <p>They will present their race plan in a way that confidently use ICT to provide information and to communicate with others</p> <p><b>Relating to others:</b> students are tasked with interacting effectively in a team and may need to gather further information from a range of people. This competency includes the ability to listen actively, recognise different points of view, negotiate, and share ideas. By working effectively together, the students should develop a challenging 'race' or 'mission' itinerary that can be followed by others.</p>	<p><b>Achievement Objectives: Level Five</b></p> <p><b>Health and Physical Education:</b></p> <p><b>A3 Safety management</b> - Investigate and practise safety procedures and strategies to manage risk situations</p> <p><b>B4 Challenges and social and cultural factors</b> - Investigate and experience ways in which people's physical competence and participation are influenced by social and cultural factors.</p> <p><b>English</b></p> <p><b>Speaking, writing, and presenting</b></p> <p>There are a number of opportunities here for the development of English skills particularly with respect to the use of appropriate, effective text structures.</p> <p><b>Mathematics</b></p> <p><b>Geometry and measurement</b></p> <p><b>Position and orientation</b></p> <ul style="list-style-type: none"> <li>• Construct and describe simple loci.</li> <li>• Interpret points and lines on co-ordinate planes, including scales and bearings on maps.</li> </ul> <p><b>Social Studies</b></p> <p>Understand how people's management of resources impacts on environmental and social sustainability.</p>



### **Learning Intention**

Work together in a team to design a challenge other people can complete while having fun and remaining safe.

The BES research shows, that for learning to be most effective, student's prior experience and knowledge should be incorporated into the initial stages of any programme. Other points made in the BES that we should be cognisant of include:

- Relevance is made transparent to students – a discussion with the class as to how designing a 'Metro Magic Mission' could be relevant.
- Ways of taking meaning from text, discourse, numbers or experience are made explicit. Students will gain much from using a variety of text forms and determining their efficacy in relation to the desired outcome.
- New information is linked to student experiences. A number of the students may have watched 'Amazing Race' episodes and be keen to implement ideas within their own urban environment using local buses and active transport options.

### **Special Features**

This activity needs to be designed for and completed within a defined urban area agreed on by all participants. The development of the 'race/challenge' activity should take 2-3 lessons depending on the group with the actual Mission being undertaken within a period of a day, perhaps 3-4 hours.

The challenge as designed should 'celebrate' what is special about the part of greater Christchurch the 'mission' is located in.

### **Resources:**

- Access to the Metro online planning tool: [www.metroinfo.co.nz](http://www.metroinfo.co.nz) or a selection of paper bus timetables alongside the overall network map: [www.metroinfo.co.nz/map](http://www.metroinfo.co.nz/map)
- Information about the work of Environment Canterbury: [www.ecan.govt.nz/about-us/your-council](http://www.ecan.govt.nz/about-us/your-council)
- Christchurch map
- Some Christchurch tourism pamphlets
- Background to the TV series The Amazing Race: [http://en.wikipedia.org/wiki/The\\_Amazing\\_Race](http://en.wikipedia.org/wiki/The_Amazing_Race)

### **Assessment /What would success look like:**

The group should be working together towards the common goal of successfully getting all the 'Mission' teams safely around the urban area and back to base within a defined time. Ultimate success would be the students actually physically managing to do this. 'Icing on the cake' would be the students also showing competence in reflecting on & relating how well, they have worked as a group, and upon their planning methods.



Activity	Organisation/Management
<p><b>Metro Magic Mission</b></p> <p><b>Objective:</b> Work as a team to create an ‘Amazing Race’ type journey-challenge within a defined area of Christchurch [Note: the city can be changed]</p> <p><b>Restrictions:</b></p> <ul style="list-style-type: none"> <li>• must involve the use of Metro buses at least twice,</li> <li>• include two other Environment Canterbury services or activities, and</li> <li>• be able to be completed within 4 hours</li> </ul> <p><b>Process</b></p> <ol style="list-style-type: none"> <li>1.) Know your theme – what should competitors know or have a sense of by the end of their Mission?</li> <li>2.) Work together to map out possible routes and challenges. Consider how many teams your Mission would work for and how many challenges would they face along the way. Together strategise how you would not only ensure the restrictions are met but also participant safety. Think logically and creatively about implications and risks. Consider whether you eliminate teams along the way or just reward the teams that finish 1st, 2nd &amp; 3rd.</li> <li>3.) Discuss, develop and draft up your clue cards. They contain instructions about the task and clues for the next destination. You can create riddles for them to guess on the next location or be poetic in giving the instructions or use map coordinates.</li> <li>4.) The tasks: Be creative in thinking of tasks or challenges for the players. <ul style="list-style-type: none"> <li>• Mind tasks- these require mental skill and the ability to solve different problems including puzzle solving, riddles, trivia quizzes and brain teasers. These could be about work Environment Canterbury undertakes a particular site.</li> <li>• Physical tasks- require running, jumping, etc. Examples are relay, interpretive dancing, treasure hunting, measuring the air monitoring station. One commonly set task is where one student is blindfolded while the other verbally guides the blindfolded student to a particular object, which they then have to identify. (While teams undertake the task they could be videoed)</li> <li>• Mystery Food - Some ideas include raw vegetable shake, etc. Be as playful and gross as you can be.</li> </ul> </li> </ol>	<p>Students need to be organised into teams of up to four members. They need to understand what skills they each bring to the table and how they may best collaborate on developing their own Metro Magic Mission.</p> <p>The teams need to be provided with enough resources to enable them to plan. Access to internet capable computers would be most useful.</p> <p>A guideline sheet should be given to each team (see example below).</p> <p>As the teacher, you have a responsibility to oversee the teams’ planning to ensure their ideas are sound and safe.</p> <p><b>Achievement Objectives</b></p> <p>As student teams work through each part of the process they will be undertaking various achievement objectives (AO). Depending on the focus you may wish to emphasise in this unit supplementary tasks could be added to ensure a particular AO is completed appropriately i.e. a specific mapping task added to ensure the students demonstrate an understanding of position and orientation for mathematics or task 4 could be re-jogged to ensure they meet the outcomes for Level 5 Health and Physical Education or require them to explain how Environment Canterbury’s work contributes to environmental and social sustainability for Social Studies.</p>



- 5) After you have decided on the challenges, approach the owners (private or organisation) of the places you are going to go and check if they are okay with your plans. For example, if you are having the teams jump across a narrow stream, who may be interested in knowing? If you're having the teams go to a local mall remember that you will be on private property and what you do there may cause inconvenience – seek permission first. Offer some advertisement in your marketing materials in exchange if needed.
- 6) Create an outline of how the race/mission would go from start to end. Include the things needed for each station and assign at least two facilitators for each station to ensure that the players accomplish their task.

#### Reflection and review

Reflect on the process of creating a plan for the Metro Magic Mission and, if the Mission was actually run, how it went in terms of safety, fun and the restrictions.

Reflection and review is an important ingredient in any learning programme.

In order to reinforce learning, regular reflection cycles are useful. Reflection sessions not only provide an opportunity for the students to share what they have understood so far but also enable the teacher to ascertain whether appropriate learning is occurring. The art of a useful reflection session is in the questions posed. This site on asking Socratic Questions has some useful starter questions [www.tbc.school.nz/elearning/localsites/i-learnt.com/Thinking\\_Socratic\\_Questioning.html](http://www.tbc.school.nz/elearning/localsites/i-learnt.com/Thinking_Socratic_Questioning.html)

#### Risk Management: People, Environment, Equipment.

There is little risk involved if the activity remains school-based.

If any of the "Missions" are actually run, then the risks will depend on the strategies the students use to get their teams through the Mission. Injury could occur due to the way the teams support and care for each other - ensure there are adults present at the activity sites to potentially catch or treat any injuries that may occur. There must be a first aid kit available to treat minor scrapes or knocks and participants need to be briefed on how to keep safe at all times. Students are encouraged to work with each other and their teacher to create a Health & Safety plan or RAMS.



# Guideline - Metro Magic Mission

## Objective

Work as a team to create an 'Amazing Race' type journey-challenge within a defined area of Christchurch.

## Restrictions:

- must involve the use of Metro buses at least twice,
- include two other Environment Canterbury services or activities, and
- be able to be completed within 4 hours.

## Process

- 1.) Know your theme – what should competitors know or have a sense of by the end of their Mission?
- 2.) Work together to map out possible routes and challenges. Consider how many teams your Mission would work for and how many challenges would they face along the way. Together strategise how you would not only ensure the restrictions are met but also participant safety. Think logically and creatively about implications and risks. Consider whether you eliminate teams along the way or just reward the teams that finish 1st, 2nd & 3rd.
- 3.) Discuss, develop and draft up your clue cards. They contain instructions about the task and clues for the next destination. You can create riddles for them to guess on the next location or be poetic in giving the instructions or use map coordinates.
- 4.) The tasks: Be creative in thinking of tasks or challenges for the players.
  - Mind tasks- these require mental skill and the ability to solve different problems including puzzle solving, riddles, trivia quizzes and brain teasers. These could be about work Environment Canterbury undertakes a particular site.
  - Physical tasks- require running, jumping, etc. Examples are relay, treasure hunting, measuring the air monitoring station. (You may decide to get the task on video)
  - Mystery Food - Some ideas include raw vegetable shake, etc. Be as playful and gross as you can be.....safely!!
- 5) After you have decided on the challenges, approach the owners (private or organisation) of the places you are going to go and check if they are okay with your plans. For example, if you are having the teams jump across a narrow stream, who may be interested in knowing? If you're having the teams go to a local mall remember that you will be on private property and what you do there may cause inconvenience – seek permission first. Offer some advertisement in your marketing materials in exchange if needed.

## Example plan

### START

#### Destination 1: Open Field (Starting groups: 10)

**Facilitators:** Bill & Bernice  
**Task:** Each group gets a Word Hunt Puzzle of terms relevant to the work of Environment Canterbury. Their task is to Find 20 hidden words. The last team to finish will be eliminated/ points against them

**Things needed:** 10 printed Word Hunt Puzzles

#### Destination 2: Library entrance (9 groups remaining if working on elimination)

**Facilitators:** Kath and Ken  
**Task:** Eat the mystery food  
**Things Needed:** raw food, plastic cups



- 6) Create an outline on how the race/mission would go from start to end. Include the things needed for each station and assign at least two facilitators for each station to ensure that the players accomplish their task (see example plan).
- 7) Create a budget: now that you have sorted out your challenges for your Metro Magic Mission, work out the costs involved. You will need to take into account the following:
  - Tickets for buses, which may include getting your task monitors to the right spots
  - Materials for tasks
  - Printed material such as maps & clue cards, and maybe a promotional brochure.Provide a break-down of your costs in the form of a budget sheet (using Excel or similar programme) and suggestions as to how you could cover the expenses.

### **A few more things to think about:**

Prepare the materials ahead of time and place them in bags for each station so there's no hassle in giving these to each destination. Meet the facilitators beforehand to talk about the race and answer their questions.

Have a clinic or first aid kit station near the venue to ensure that any injured player will be attended. Instruct them to wear sports clothes; to personalise the groups, have them wear the same colour shirt or hat per group to show uniformity.

To film the teams or not – if you only have a few teams a staff member can follow them and film them doing their tasks. If there are more than a few teams, staff or volunteers can be at the task areas filming each team as they come through.

Do you have a logo for your Metro Magic Mission? Below is one logo you must be sure to include on your materials –

# metro

The Metro logo can be grabbed from [www.metroinfo.co.nz](http://www.metroinfo.co.nz) or email us [education@ecan.govt.nz](mailto:education@ecan.govt.nz) for a high res jpg.

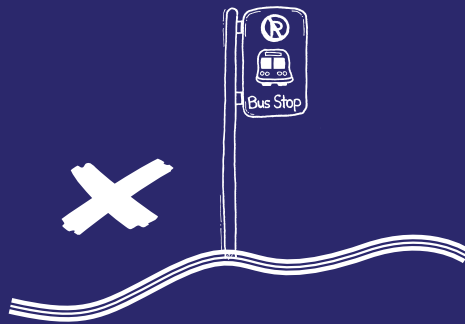
Make sure you have scouted out the course ahead of time. Also, give the teams a list of things they should have if adult support is not staying with them the whole time. Maps, water, and money are a few of the things they may need to have with them.

Putting together your own Metro Magic Mission contest will take some work, but the programme is something the contestants will be talking about for a very long time if done right.

### **Reflect and Evaluate**

Now that you have completed the planning your Metro Magic Mission, review what you have done using these questions as a guide.

- Describe the things you enjoyed about undertaking this planning
- Outline what aspects you may have struggled with or found difficult to do and why that may have been so. .
- If you were to do this project again, what things would you do differently, and how or in what ways?
- What advice would you give to the Metro team that may help them improve either their online planning tool or particular bus routes?



Metro Magic Mission