

# teacher overview

## Mathematics B Education Program



### Mathematics B Education Program

Teacher: \_\_\_\_\_

School: \_\_\_\_\_

Welcome to the WhiteWater World Mathematics B Education Program.

#### The Student Activities

This series consists of six student activity booklets:

- *Blue Ringed Octopus*
- *Cave of Waves*
- *Super Tubes Hydrocoaster*
- *The Cave of Waves*
- *The Perfect Tube*
- *The Rip*

#### The Teacher Guides

Each activity has an accompanying Teacher Guide which contains introductory notes and full worked solutions to the student activities.

The front two pages of each teacher guide contain:

- Syllabus links – Excerpts from the Queensland Senior Mathematics B Syllabus related to the student activities.
- Equipment – A full list of the materials that students require to complete each activity.
- Standard achieved – Level of student achievement according to the broad criteria of Knowledge and Procedures, Modelling and Problem Solving and Communication and Justification. Because schools vary in the criteria used to assess each of these three broad categories, it is suggested that you prepare your own marking grid for each activity consistent with your own criteria.
- Focus – The key syllabus topic addressed by the activity.
- Overview of student activities – A quick-reference list for you to identify activities that are relevant to your course.
- Background knowledge and skills – To enable you to prepare your students with the necessary background before they attempt the activities.

## Planning your Activities

It is expected that a Mathematics B student would be able to complete three full activity booklets in a whole day at WhiteWater World. Prior to the excursion, you should select the booklets that your students are to attempt and photocopy sufficient copies for them. We recommend three activities per student per day.

It will be of value for students to be familiar with the questions they are to answer and should be given some time to read over the booklets before they arrive at WhiteWater World.

Students should work in groups of 2, 3 or 4 with each activity. There is no reason why different groups could not do different activities.

None of the activities are mutually exclusive. However, *The Green Room* and *The Rip* follow a similar Mathematical Modelling procedure so it is not recommended that students complete both of these activities.

## Waterproofing Calculators

None of the activities in this program require students to use calculators or other electronic equipment in or very near the rides at WhiteWater World. However, students will be students and there is a risk of calculators getting splashed. In order to avoid damage, we recommend that you supply students with a clear plastic ziplock bag (such as a sandwich bag, readily available from supermarkets). They can ziplock their calculator away in the waterproof bag for the day and still have full use of its functions.

Clear plastic A4 sheet protectors are recommended for each activity in order to keep the pages dry.

## Feedback

We have worked hard to put together a program which will be of benefit to you and your students. Please pass on your comments to WhiteWater World education staff if there is any way that we can improve the activities in this program.

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