

## Calculus for Kids

### Information Sheet for Parents/Guardians

#### Invitation

Your student is invited to participate in a research study about using a laptop for learning some specialist mathematics. The study is being conducted by a team led by Andrew Fluck and Dev Ranmuthugala from the University of Tasmania. Calculus is not a part of the Mathematics K-10 syllabus.

1. The study is looking at how the personal computer (netbook or laptop) can help your student solve everyday problems using special mathematics software. We will give them the software and show them how it works.
2. Your student is eligible to participate in this study because their school has a program where every student in the class has a computer.
3. Participation in this study will consist of involvement in 13 lessons (of 50 minutes each) conducted by a teacher we have trained in the special mathematics and software. Your student will have a chance to learn about calculus, a very powerful way of solving everyday problems. The software will do most of the complicated work for them, but they will need to tell it exactly what to do! At the end of the lessons, we will ask them to solve some problems using these new skills and software, and complete two surveys about their attitudes to maths on computer – this will take about 45 minutes.
4. We will request the school to provide an opportunity for students who do not participate in the study to undertake normal classroom work while the class works on this project.

It is important that you understand that your student's involvement in this study is voluntary. While we would be pleased to have them participate, we respect your right to decline. There will be no consequences to your student if you decide not to participate, and this will not affect their schooling. If you decide to discontinue their participation at any time, you may do so without providing an explanation. All information will be treated in a confidential manner, and their name will not be used in any publication arising out of the research. All the research data will be kept in a locked cabinet in the office of Dr. Andrew Fluck for a maximum of five years after the publication of results.

5. There are no specific risks anticipated with participation in this study. However, if your student finds that they are becoming distressed they will be advised to receive support from their regular teacher.
6. If you would like to discuss any aspect of this study please feel free to contact either Dr. Fluck on ph (03) 6324 3284 (e-mail [Andrew.Fluck@utas.edu.au](mailto:Andrew.Fluck@utas.edu.au)) or Professor Ranmuthugala on ph (03) 6324 9474 (e-mail [D.Ranmuthugala@utas.edu.au](mailto:D.Ranmuthugala@utas.edu.au) ). Either of us would be happy to discuss any aspect of the research with you. Once we have analysed the information we will be mailing / emailing you a summary of our findings. You are welcome to contact us at that time to discuss any issue relating to the research study.

This study has been approved by the Tasmanian Social Science Human Research Ethics Committee. If you have concerns or complaints about the conduct of this study should contact the Executive Officer of the HREC (Tasmania) Network on (03) 6226 7479 or email [human.ethics@utas.edu.au](mailto:human.ethics@utas.edu.au). The Executive Officer is the person nominated to receive complaints from research participants. You will need to quote H10959.

**Thank you for taking the time to consider this study.**  
**If you wish to take part in it, please sign the attached consent form.**  
**This information sheet is for you to keep.**

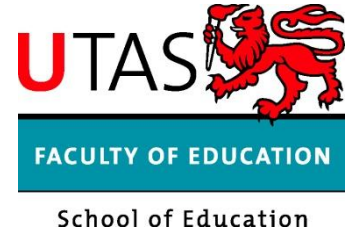
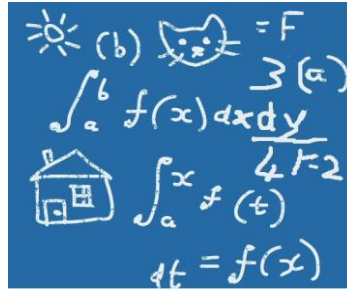
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### Parent/Guardian consent form

1. I have read and understood the 'Information Sheet' for this project.
2. The nature and possible effects of the study have been explained to me.
3. I understand that the study involves participation of my student in 11 lessons conducted by a teacher trained in calculus and calculus software, followed by a test using their new skills and software, and two attitude surveys which will take about 45 minutes.
4. I understand that participation involves the risk(s) that my student may encounter difficult mathematical problems.
5. I understand that all research data will be securely stored on the University of Tasmania premises for at least five years, and will be destroyed when no longer required.
6. Any questions that I have asked have been answered to my satisfaction.
7. I agree that research data including NAPLAN numeracy results gathered from my student for the study may be published provided that they cannot be identified as a participant.
8. I understand that the researchers will maintain my student's identity confidential and that any information I supply to the researchers will be used only for the purposes of the research.
9. I agree my student may participate in this investigation and understand that I may withdraw them at any time without any effect, and if I so wish may request that any data they have supplied to date be withdrawn from the research.

Name of Pupil:

Signature:

Date:

**I agree that my student can participate in this study.**

Name of Parent/Guardian:

Signature:

Date:

#### Statement by Investigator



The participant has received the Information Sheet where my details have been provided so participants have the opportunity to contact me prior to consenting to participate in this project.

Name of Investigator

Signature of Investigator