

Audience

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Infinity Squared

Students who are significantly talented in numeracy or mathematics from grades 5 to 8.

Related Programs



Ad Astra Junior
Ad Astra Senior



ArtyFacts Junior
ArtyFacts Senior



GameCraft



Pegasus Project



Rockin' with Lil' Elvis



SmartBots



Socrates Café Book
Socrates Café Topical

So Far So Good

So Far So Good!

Selection of students

The selection of students should be based on the following criteria:


- students who regularly complete set work early and are looking for further challenge
- students who are *significantly talented* in numeracy or mathematics
- students with a 'passion' for numeracy or mathematics
- students for whom underachievement is considered to be a real or potential issue.


Although formal identification as a gifted student is not an essential criteria for selection, schools are encouraged to nominate identified students where appropriate.

Identifying students eligible for this program may be assisted by the use of the CELO Identification package.

Centre for Extended Learning Opportunities (CELO)

Contact details

 (03) 6233 5181

 (03) 6233 7199

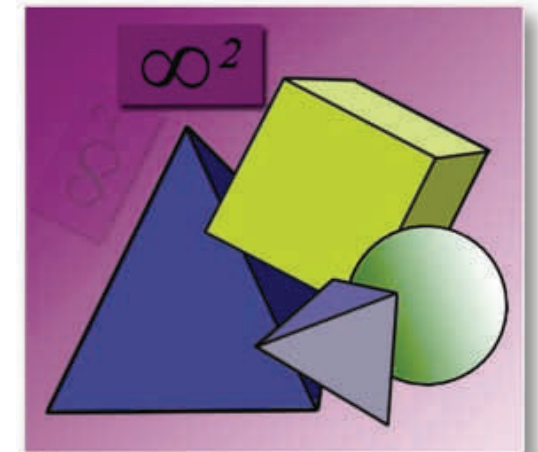
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Infinity Squared



Guidelines

General Guidelines

CELO online extension programs have high quality content and standards of delivery. Places in programs are usually limited to a maximum of 5 students per school, with each student accessing a maximum of one program at a time. Video / DVD based programs will give priority to schools with 5 enrolments.

These programs are managed by an **online teacher**, who develops the work, maintains the site, and works with the students online.

Support person

Each student or group on the program needs a **support person** in their school who may be a teacher, parent or teacher aide. The role of the support person is crucial to ensure that students fully engage with the program.

Students may need:

- guidance in using their time effectively
- reassurance that they are 'on the right track' e.g. with a problem solving task
- help / permission to print in order to work away from the computer
- help locating materials that are needed for activities
- help digitally recording work or organising postage
- technical support if their machine won't function correctly.

There is also the expectation that the support person will keep up with the changing materials in the program, and maintain a dialogue with the delivery teacher and classroom teacher if using the withdrawal model.

Time

Students require a minimum of 45 minutes school time per week for most online programs. This will vary from all online to mostly offline, as students access online materials / assignments / activities and work offline to create their responses. It is expected that students will have appropriate offline time. Students may benefit from printing a challenge or problem to work away from the computer. Students are also able to use the site from home, library or any place where they have internet access.

Online extension programs may be accessed as both an integration or withdrawal model; that is, as an integral part of the student's classroom program or with students gathered from classes to a central location supervised by a support person, or as a combination of both models.

Regular Contact

Students are expected to communicate regularly through the tools provided.

CELO online extension programs use a delivery application which tracks student activity. If a student does not log on, the delivery teacher will try to find out why. If there is a reason why the student is not accessing the site (e.g. going on extended holiday) the delivery teacher should be contacted. Student logon is their VKEY username and password.

Acceptable use

Students must have signed an Acceptable Use Agreement in their school, outlining appropriate behaviour when using Information and Communication Technology. Repeated or high level incidents of inappropriate behaviour will result in the student's removal from the program.

Infinity Squared Guidelines

There is a maximum enrolment of three students per school. A place may be offered to a previously identified student.

Purpose

Infinity Squared has two main purposes:

- to provide activities that enrich and challenge students who have been identified as significantly talented in numeracy and mathematics; and
- to encourage social communication between students even when situated in geographically separate sites.

Student activity requirements



Short Activities

Developing and refining problem solving skills is the aim of these activities. At the start of each term students will be given 10 problems that increase in difficulty under the heading 'warming up' to give students the opportunity to see what is expected of them as well as provide the teacher with valuable information for future challenges. Students are required to email the teacher with a detailed explanation of how they solved each problem.

Once these problems are completed students will receive access to sets of 20 problems under 'Mathematics and Logic'. These sets will stay on site for several weeks as students from different schools have different access times. New sets of 20 problems are added to the top of the list as older ones are deleted.

Problem-solving strategies will be explained in detail and students are encouraged to use these strategies when solving problems.



Email

Students can email by clicking the email icon and using the browse button to see who to email. Note that this email operates only within the Infinity Squared class. Email will be the main means by which students explain their solutions. As fostering social interaction among these students is one of the purposes of Infinity Squared, students are encouraged to email each other and are welcome to do so from home as well if they have internet access.



Challenges

Abstract areas of mathematics will be dealt with through challenges and investigations. Students will be required to use their higher order thinking skills in order to research and locate the theories, formulas and methods of a particular field of mathematics to successfully and efficiently complete a challenge.



Presentations area

Every student will be expected to submit their work on challenges for the presentations area. They should also be encouraged to look at other students' presentations.



Discussion area

Students need to respond to questions, read other people's responses and build upon them. Students need to watch for new discussion topics and be encouraged to respond to them. Discussion topics may include debate in relation to a particular mathematician and his/her work.

Discussions will focus on the current challenge. During a challenge it can be used for students to ask for or provide ideas and assistance. Once a challenge is completed students will be encouraged to use the discussion area as a place to give one another feedback on the manner in which challenges were completed. Students should understand the need for postings to be well thought out responses, demonstrating higher order thinking.



Student homepages

This is the meeting place for the members of Infinity Squared. Each student should make his/her own page in order to have a visible presence in the class. If they do not, other students may not make contact.
