

Geographical Society of NSW. As the year progresses, more information will become available about the way in which geography and geographers at schools and in universities can increasingly connect through a range of formal and informal collaborative opportunities.

In closing I would like to thank Lorraine Chaffer, the journal editor, for the way she has curated this edition of the Geography Bulletin. This Bulletin is designed more-so than usual to assist geography teachers in being able

to access relevant, useful resources that transfer easily to a classroom context.

Wishing you all a productive journey throughout the remainder of Term 2 and I look forward to our paths crossing in various forms.

Susan Caldis

President, GTANSW&ACT | STEM Ambassador, Science & Technology Australia

Science Meets Parliament; Geography Meets STEM Where is the place of Geography in the STEM space? Part 1

**Susan Caldis, President, GTANSW&ACT
2020 STEM Ambassador, Science & Technology Australia**

Science Meets Parliament; Geography Meets STEM is a short report about the connection between (i) the Strategic Plan for Geography, *Geography: Shaping Australia's Future* (National Committee for Geographical Sciences, 2018); and (ii) a national event, Science Meets Parliament, in November 2019. The context of a future possibility for geography education in schools and for geography as a discipline provides the point of connection. The purpose of such a report is to set the foundation for further thought, discourse and a series of articles to emerge around the question 'Where is the place of geography in the STEM space?'

Where is the place of geography in the STEM space?


The release of the Strategic Plan for Geography, *Geography: Shaping Australia's Future* provides evidence-based direction for the discipline of geography, including its context and representation of geography as a subject in Australian schools. Directions for the discipline of geography occurs through a series of recommendations. One of the recommendations is for a submission to be developed, for Ministers of Education, around the recognition of geography as a partial STEM subject. *Geography: Shaping Australia's Future* is accessible via the following weblink <https://www.science.org.au/files/userfiles/support/reports-and-plans/2018/geography-decadal-plan.pdf> The process of building a submission starts with theoretical musings, such as *Geography and STEM* (Caldis & Kleeman, 2019) available in Geographical Education retrievable from <https://www.agta.asn.au/Resources/GeographicalEducation/geoged-v32-2019.php> Emerging from theoretical positions are discussion forums, surveys, observation of practice and so on. There are typically many components that make-up one submission. At the moment, the place of geography in the STEM space appears as a future possibility and an actionable

item in directional policy for the discipline. The place of geography in the STEM space also appears in professional readings for teachers.

Science Meets Parliament is an annual event hosted by Science & Technology Australia. The event is an opportunity for parliamentarians, industry professionals, academics, and policy makers to engage in reciprocal dialogue and pitching activities about 'What is your science? Why does it matter?'. The dialogue culminates in each delegate putting forward at least one evidence-based proposition related to the future of 'their science'. As the only representative for geography education and with the Strategic Plan and professional readings in hand, my science, pitch and proposition were dovetailed in to "Geography education; Geography as a STEM subject; Geography acts as a bridge between the sciences and social sciences, therefore place-based analysis, spatial reasoning skills, and understanding about human-environment-more than human-interactions add depth and contribute to STEM understandings whereas the intersection between Geography and STEM lies in the pedagogy: inquiry, fieldwork, future-focused problem-solving". I was also able to share the current work of a geography teacher who has embarked upon a GeoSTEM initiative with Year 9 – tune in to an upcoming GTANSW&ACT webinar to hear more about this GeoSTEM project from the teacher! My appointment as a 2020 STEM Ambassador for geography education suggests a willingness from parliamentarians, industry professionals, academics and policy-makers to engage in further dialogue about the place of Geography in the STEM space.

Although at this point in time there is no definitive answer to 'Where is the place of Geography in the STEM space?' there is scope to draw on theory, policy and practice as a guidance towards the potential realisation of a future possibility.

GTA NSW & ACT SUPPORT



GTA The Geography Teachers' Association of NSW & ACT **NEW**

GEOGRAPHY 110: INTRO TO MAPS

A flexible, any where, any time online learning opportunity through Open Learning

Geographical tools and skills are an important part of teaching Geography. This professional development course, created by Dr. Paul Batten on behalf of the GTA NSW & ACT, introduces the maps and map skills that teachers should share with students within the NESA Geography Syllabus K-10.

Skills developed in this course include:

- applying knowledge of the content and teaching strategies of Geography to develop engaging teaching activities (NESA Standard 2.1.2),
- applying knowledge and understanding of effective teaching strategies to support students' literacy and numeracy achievement (NESA Standard 2.5.2) and,
- contributing to collegial discussions... to improve professional knowledge and practice (NESA Standard 6.3.2).

The course is designed for flexible delivery. Participants can start, progress and finish at times convenient to them. Participants collaborate in a 'pay it forward' style with other teachers, engaging with previous contributions and creating their own posts, adding to the galleries of exemplars for future participants to review.


Cost: \$90 – Register at www.openlearning.com/ptc-nsw/courses/geography110/
For further information about this course contact – gta.elearning@gmail.com

PARTICIPANT FEEDBACK:

"This is an accessible and easy way to learn and improve classroom practice."

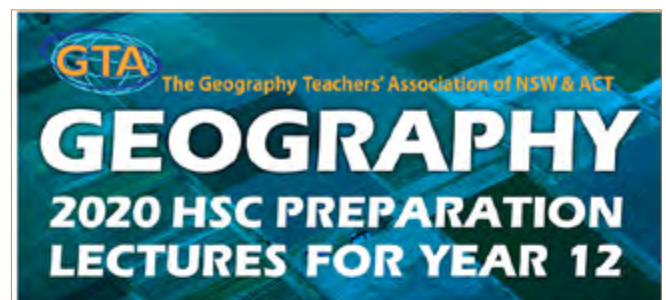
"I really enjoyed doing this course. Strong explanations of each skill were given with relevant activities provided to consolidate understanding, plus some really good resources."

"A valuable professional learning activity for those wanting to validate their mapping skills, e.g. primary teachers or those new to teaching Geography."

 Geography Teachers Association of NSW & ACT, through the Professional Teachers' Council NSW – is endorsed to provide the NSW Education Standards Authority (NESA) Registered Professional Development for teachers accredited at Proficient, Highly Accomplished, and Lead levels.

Completing the Geography 110: Intro to Maps on 28 November 2019 – 29 October 2020 will contribute 3 Hours of NSW Education Standards Authority (NESA) Registered PD addressing 2.1.2; 2.5.2; 6.3.2 from the Australian Professional Standards for Teachers towards maintaining Proficient Teacher Accreditation in NSW.

www.gtanew.org.au • gta.admin@ptc.nsw.edu.au • 02 9716 0378



GTA The Geography Teachers' Association of NSW & ACT

GEOGRAPHY 2020 HSC PREPARATION LECTURES FOR YEAR 12

GTA NSW & ACT has organised lectures for HSC Geography students and teachers. This year's lectures will be offered as a set of pre-recorded videos and support materials. Teachers at schools will be able to use the materials with their HSC classes, irrespective of the number of students enrolled in the HSC Geography course. The resources are not to be used for private tutoring purposes.

The presenters are experienced educators and HSC markers.

PRESENTERS AND LECTURE TOPICS:

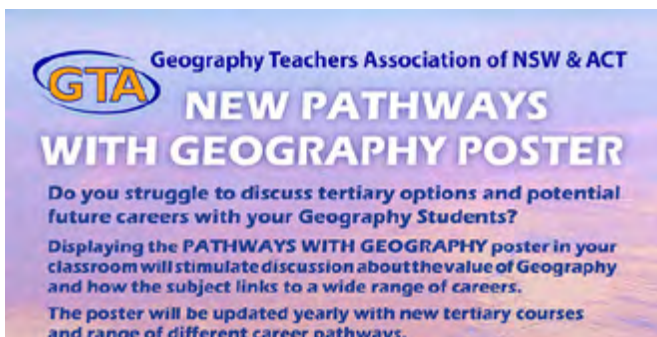
Lorraine Chaffer: Ecosystems at Risk
Grant Kleeman: People and Economic Activity – Global Tourism and impact of the pandemic
Karen Bowden: Urban Places
Sharon McLean: HSC Geographic Tools and Skills

The package will be available from Wednesday June 24th. The teacher(s) who completes the registration for their school will be provided with the download details once payment has been received.

COST:
\$150 members (school or personal), \$180 non-members

ORDER AND PAY HERE

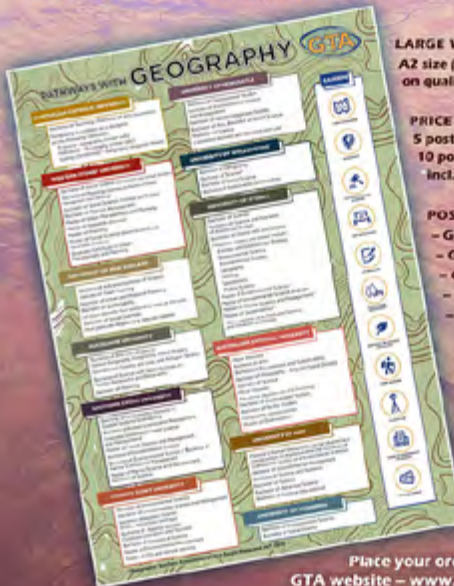
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GTA Geography Teachers Association of NSW & ACT

NEW PATHWAYS WITH GEOGRAPHY POSTER

Do you struggle to discuss tertiary options and potential future careers with your Geography Students?
Displaying the PATHWAYS WITH GEOGRAPHY poster in your classroom will stimulate discussion about the value of Geography and how the subject links to a wide range of careers.
The poster will be updated yearly with new tertiary courses and range of different career pathways.



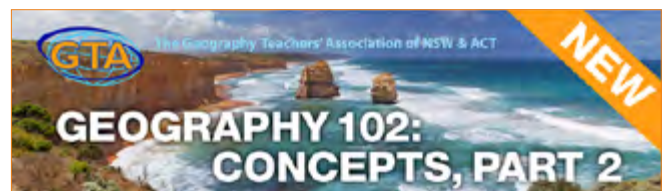
LARGE WALL POSTER
A2 size (42 x 59.4 cm) printed on quality 200 gsm paper

PRICE
5 posters – \$70
10 posters – \$100
incl. postage & handling

POSTERS FOR
– Geography classrooms
– Geography staffroom
– Careers office
– Library
– Study rooms

AVOID POSTAGE
Pay and collect option:
5 posters – \$50 from the
GTA NSW & ACT Office:
079 29 31 Hemmra Rd, Auburn
(Corner Holt & Percy St)
Phone ahead 9716 0378

Place your order via the
GTA website – www.gta.nsw.org.au



GTA The Geography Teachers' Association of NSW & ACT **NEW**

GEOGRAPHY 102: CONCEPTS, PART 2

A flexible, any where, any time online learning opportunity through Open Learning

Geographical concepts are a foundation for teaching Geography in NSW. This professional development course, created by Dr. Paul Batten on behalf of the GTA NSW & ACT, examines four of the seven key concepts from the Australian Curriculum Geography and NESA Geography Syllabus K-10.

Skills developed in this course include:

- applying knowledge of the content and teaching strategies of Geography to develop engaging teaching activities (NESA Standard 2.1.2),
- participating in learning to update knowledge and practice targeted to professional needs and system priorities (NESA Standard 6.2.2) and,
- contributing to collegial discussions... to improve professional knowledge and practice (NESA Standard 6.3.2).

The course is designed for flexible delivery. Participants can start, progress and finish at times convenient to them. The focus of the course are text and image posts. Participants collaborate in a 'pay it forward' style with other teachers, engaging with previous contributions and creating their own posts, adding to the galleries of exemplars and case studies for future participants to review.


Cost: \$90 – Register at <https://www.openlearning.com/ptc-nsw/courses/geography102/>
For further information about this course contact – gta.elearning@gmail.com

PARTICIPANT FEEDBACK:

"This is an accessible and easy way to learn and to improve classroom practices."

"Another great course. Such a valuable learning opportunity."

"The course covers key geographical concepts, incorporates interesting activities that you could easily use in your own classroom, and has the added bonus of learning from your colleagues."

 Geography Teachers Association of NSW & ACT, through the Professional Teachers' Council NSW – is endorsed to provide the NSW Education Standards Authority (NESA) Registered Professional Development for teachers accredited at Proficient, Highly Accomplished, and Lead levels.

Completing the Geography 102: Concepts, Part 2, on 29 October 2019 – 29 October 2020 will contribute 5 Hours of NSW Education Standards Authority (NESA) Registered PD addressing 2.1.2; 6.2.2; 6.3.2 from the Australian Professional Standards for Teachers towards maintaining Proficient Teacher Accreditation in NSW.