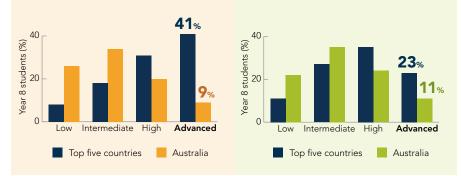


# SCIENCE AND MATHS IN AUSTRALIAN SECONDARY SCHOOLS

#### Student performance **Mathematics** Science 1. Australia's performance and Australia's international international PISA ranking has PISA ranking has declined in maths declined in science **RANK SCORE** RANK **SCORE** 527 2003 2012 521 8th 15 2012 504 20

2. Fewer Australian students performed at TIMSS advanced levels of maths and science compared with the top five countries

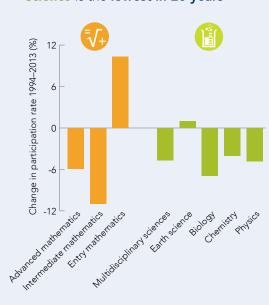


PISA performance in maths and science varies by state or territory, with significant differences between highest and lowest equivalent to...



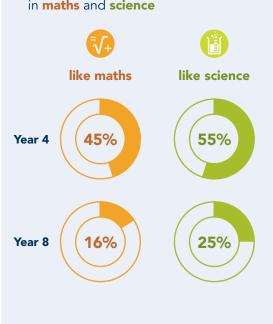
#### Student participation

A. Participation in most Year 12 maths and science subjects is declining and for science is the lowest in 20 years





**B.** Older students are **losing interest** in **maths** and **science** 



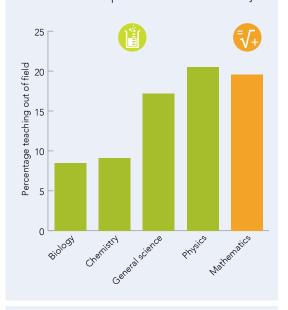
# SCIENCE AND MATHS IN AUSTRALIAN SECONDARY SCHOOLS

#### Student performance – PISA 2012 scores **Mathematics** Science 4. Boys outperformed girls in maths, 524 540 but were Girls 510 about the 519 Boys same in Boys 498 science 480 Girls 460 Difference of 12 = Difference of 5 = 440 0.3 years 0 years 5. The difference Difference of 90 = Difference of 84 = 2.5 years between 2.5 years Indigenous 540 and non-Non-Indigenous Indigenous **507** student 500 Non-Indigenous performance 480 was equivalent to about 460 2.5 years of 440 440 schooling Indigenous 420 Indigenous 400 580 6. Students in 560 metropolitan areas 540 **527** significantly Metropolitan 511 outperformed students Metropolitan in remote 470 Australia, Remote equivalent to 444 1.5-2 years Remote 440 of schooling Difference of 67 = 420 Difference of 57 = 1.5 years 2 years 400 580 567 7. Students from High SES high socio-**550** economic **High SES** 540 status (SES) backgrounds significantly outperformed 479 480 those from 463 Low SES **low SES** Low SES backgrounds Difference of 87 = Difference of 88 = 2.5 years 2.5 years

### Teacher supply

A. Around 20% of secondary maths and science teachers across all sectors (government, independent and Catholic) are teaching 'out of field'

– i.e. are not qualified to teach the subject



**B.** The proportion of schools that have difficulty filling Year 8 maths and science teaching positions is about double the international average

