

INVESTIGATING DECIMAL NUMBERS – TOPIC SUMMARY

For Year Level 6

Author: Marcus Gallet

This material relates to the following Australian Curriculum (Mathematics) (Outcome): Investigate terminating and recurring decimals (AC/SP/6/14)

Rationale for Use

It is expected that students will have access to an array of practice material in the form of textbooks or school prepared exercises. The purpose of the AMSI materials is to support the development of **understanding** and **reasoning** about the concepts involved. They complement and enhance the teacher instruction elements of normal classroom instruction.

Explanation / Description

In this unit, students investigate terminating and recurring decimals by using the correct mathematical symbols for recurring (expanding) decimals. They convert fractions into terminating or recurring decimals and recognise why calculations may only show approximations of recurring decimals.

Resources:

1. Run the 'Investigating terminating and recurring decimals' interactive introduction.
This will explain what 'terminating' and 'recurring' decimals actually are – and importantly, how they are used in the real world. (Click on the link on the Curriculum page to run this.)
2. Explore the AMSI Schools Supporting Australian Mathematics (SAM) Project module 'Investigating terminating and recurring decimals' –
http://www.amsi.org.au/SSAM_module_years7to8/7to8_tut/7to8_tut.html. Read through the introduction and then work through each of the 'Student Resource' tabs of this topic. A short self-test is included throughout this topic – have a go!
3. Watch some handy online videos:
 - **PowerSchool – Converting between recurring decimals and fractions**
<https://www.youtube.com/watch?v=02Gz08fygJ0> Then
 - **Mr Olsen's BlueTube – Recurring Decimals and Fractions**
<https://www.youtube.com/watch?v=Kd3JmC7ad7k>
4. **Play some games and have fun with some activities!** There are a few ideas to have fun with on the 'Te-Flair' and 'Calculator' mathematics websites:
 - 'Spreading Decimals' - <https://teflair.maths.org/1008>
 - 'PaperPlane' - <https://teflair.maths.org/1009>
 - 'Toy Tower' - <https://teflair.maths.org/1010>