

Looking for ways to incorporate technology and issues relating to ICT in the classroom? Try some of these suggestions.

LESSON PLAN 10: USING PUZZLEMAKER

Objective: Create word and number puzzles

Age range: 8-18



Puzzlemaker (<http://puzzlemaker.discoveryeducation.com>) is a free, easy-to-use puzzle generation tool from Discovery Education. It can be used in the classroom to create and print customised word search, criss-cross, math puzzles, mazes, cryptograms, hidden messages, and more using your own word lists.

YOU WILL NEED

- ▶ Computer, browser, and Internet access
- ▶ Word lists and ideas for puzzles

DEVELOPING SKILLS

Literacy, maths, problem-solving, word play, creativity

METHOD

Creating a word search puzzle

1. Ask the class to choose a subject for their puzzle and compile a list of words they'd like to use.
2. On Puzzlemaker's home page select the 'Word Search' option and follow the step-by-step instructions:



- Enter the title for your word search – in our case 'Planet Hunting' (Diagram 1)
- Enter the size of your word search puzzle – the program recommends 15 x 15
- Select options for words to share letters. Puzzles where

the words do not share any letters are faster to generate and easier to solve.

- Choose the output type – **HTML** (if you plan on printing the puzzle directly from the browser), **text** (if you want to cut and paste the puzzle to a different application, or **lowercase text** (same as 'text' except letters are lowercase).
- Enter the words – we used: Mercury, Mars, Venus, Earth, Uranus, Saturn, Jupiter, Neptune, and Pluto



- Press 'Create My Puzzle' – the program will automatically generate the puzzle to your specifications (Diagram 2)
- Check the puzzle – Puzzlemaker uses a word filter to prevent the random creation of offensive words.

However, after creating a puzzle, it's worth proofreading it to check for the placement of unintended words. You can regenerate the puzzle by selecting the 'Back' button.

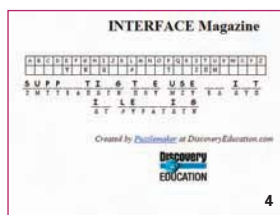
Creating a cryptogram

1. Ask the class to choose a subject for their puzzle and compile a phrase they'd like to encrypt.
2. On the home page select the 'Cryptogram' option and follow the step-by-step instructions:



- Enter the title of your cryptogram puzzle – in our case *INTERFACE Magazine* (Diagram 3)
- Enter the phrase you want to encrypt – we used our mission statement: '**Supporting the use of ICT in learning**'

- Choose the type of characters you want to use to replace the letters in the phrase – numbers, English letters or Greek letters
- Select letters to 'give away' – you can choose to reveal some of the letters in the cryptogram to give the solver a head start.



- Press 'Create My Puzzle' – the program will automatically generate the puzzle to your specifications (Diagram 4)

It's as easy as that!

TOPICS TO DISCUSS

- Why do people do puzzles?
- What other types of puzzles are there?
- Where would you find puzzles being printed or used?
- What other subjects could be used to make a puzzle?
- What makes a puzzle easy or difficult?
- What part does Maths play in puzzles?
- How could you create a puzzle without using a computer program like Puzzlemaker?
- How does Puzzlemaker work?

FOLLOW UP ACTIVITIES

- Learn about the history and development of puzzles
- Create other puzzles using Puzzlemaker
- Find and use other puzzle-creating software
- Create puzzles manually

Lesson Plans can be downloaded in PDF format from www.nz-interface.co.nz