# Lesson 1: Binary Mosaic 

## Representations: Going Audiovisual

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1 Materials from the Teach Computing Curriculum created by the National

## Task 1 - Binary mosaic

## Step 1

Create a picture by colouring the individual picture elements in the rectangular grid on the top half of the activity sheet.

You can use one of the available grids ( $8 \times 8,12 \times 12$, and $16 \times 16$ ), or a part of one of the grids (e.g. $6 \times 14$ on the $16 \times 16$ grid).

You can use at most four different colours, but you cannot use more than one colour in a picture element, and you cannot leave a picture element without a colour.

## Task 1 - Binary mosaic

## Step 2

Use one or two binary digits to represent the colour of each element.

## You can:

Decide which binary digit (or pair of binary digits) corresponds to which colour.

## You cannot:

Use one binary digit for some colours and two for others - you must use either one or two binary digits for all colours.

Step 1: Create an image


Design your own icon.

Columns $\times$ rows

Colour Binary

Step 1: Create an image


Design your own icon.

Step 2: Image to data

Legend
Columns $\times$ rows

Colour Binary

Step 1: Create an image


Design your own.

Step 2: Image to data

Legend
Columns $\times$ rows

Colour Binary

Step 1: Create an image


Design your own icon.

Step 2: Image to data

Legend
Columns $\times$ rows

Colour Binary

| $\sum$ |  | - |
| :---: | :---: | :---: |
| $\cdots$ |  |  |
|  |  |  |
| $\square$ |  |  |

Step 1: Create an image


Step 2: Image to data

Design your own icon.

Legend
Columns $\times$ rows

Colour Binary

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Design your own icon.

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Columns $\times$ rows

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