BUILDING MORE COMPLEX MODELS

Activity 1 – Bridges

Title	Bridges
eXpresser Objectives	Use patterns to construct models, use more than one colour to show different structures, find a rule for new models
Mathematical Objectives	• Algebraic equivalence
Teacher Notes	Students are asked to construct the Bridges model and use more than one pattern to make the model. Different colours are used for each pattern to show other people how the models are made. It should be possible to find a rule for the number of tiles for any Model Number. • Use pattern(s) to construct the model • Make sure 'My Model' is always coloured • Check that the 'General Mode' animates without messing-up • Make sure the model rule is always correct

Task/Activity

Students are presented with the Bridges Model in blue tiles animating on the left hand side of eXpresser:

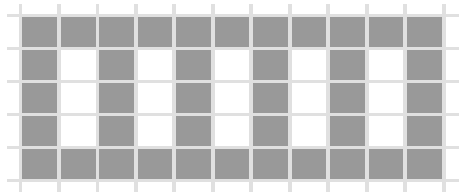Students can come up with a number of different models and their corresponding Model Rules, such as:

Activity 2 – Traintracks

Title	Traintracks
eXpresser Objectives	Use patterns to construct models, use more than one colour to show different structures, find a rule for new models
Mathematical Objectives	• Algebraic equivalence
Teacher Notes	Students are asked to construct the Traintracks model and use more than one pattern to make the model. Different colours for each pattern show other people how to make a model. It should be possible to find a rule for the number of tiles for any Model Number. • Use pattern(s) to construct the model • Make sure 'My Model' is always coloured • Check that the 'General Mode' animates without messing-up • Make sure the model rule is always correct

Task/Activity

Students are presented with the Traintracks Model in grey tiles animating on the left hand side of eXpresser:

Students can come up with a number of different models and their corresponding Model Rules, such as:

Activity 3 – Stars

Title	Stars
eXpresser Objectives	Use patterns to construct models, use more than one colour to show different structures, find a rule for new models
Mathematical Objectives	• Algebraic equivalence
Teacher Notes	Students are asked to construct the Stars model and use more than one pattern to make the model. Different colours for each pattern show other people how to make a model. It should be possible to find a rule for the number of tiles for any Model Number. • Use pattern(s) to construct the model • Make sure 'My Model' is always coloured • Check that the 'General Mode' animates without messing-up Make sure the model rule is always correct

Task/Activity

Students launch the Stars Model in red tiles animating on the left hand side of eXpresser and are given the following Goals to achieve:

Students can come up with a number of different models and their corresponding Model Rules, such as: