



Start the Party Cut and Colour

Mathematics – Patterns and Algebra	
Outcomes	Indicators
<p>K-6 PAES1.1 Recognises, describes, creates and continues repeating patterns and number patterns that increase or decrease</p> <p>7-10 Life Skills PALS.3 Calculates missing values by completing simple number sentences PALS.1 Recognises repeating patterns</p> <p>11-12 Life Skills 2.2 Understands and applies correct order of operations in calculations 4.1 Discriminates, matches, sorts, copies and creates patterns and designs</p>	<p>For students to:</p> <ul style="list-style-type: none"> • Select an appropriate image to copy or continue a repeating pattern. • Recognise, describe, create and continue repeating patterns. • Calculate missing elements to complete a simple pattern. • Use the term 'is the same as' to describe equality of groups.
Links to Australian Curriculum	
<p>Early Stage One</p> <p>MAe-8NA Recognises, describes and continues repeating patterns</p>	<p>7-10 Life skills</p> <p>MALS-18NA Recognises and continues repeating patterns</p>
Content	
<p>Introduction:</p> <p>Allow students the opportunity to experience the 'Cut and Colour' activity. When choosing the game difficulty select 'easy' mode as the students will only need to use the virtual hair clippers (and not the colour dye). Model the correct use of the wand and how it is used as a virtual hair clipper. To assist students make the connection between the virtual hair clipper and a real pair show the class a set of hair clippers (if suitable). You can also display a video of a person having their hair cut with a pair of clippers.</p> <p>When playing the activity draw the student's attention to the fact that they need to be copying the same hair style as that shown on the model. Provide prompts as necessary. Use visuals of the various hairstyles which need to be copied by the students and display these at the appropriate time throughout the activity (<i>see additional resources</i>). Replay the activity to allow the students the opportunity to practice and refine their skills.</p>	

Exploration:

Using the 'Cut and Colour' activity as a motivating tool students will have the opportunity to copy, continue and/or create a repeating pattern based on the various hairstyles found in 'Cut and Colour'. **Note:** each step below has been designed to be taught as a separate lesson (you may choose to complete all steps or select those concepts which are relevant to your learners).

1. Selects an appropriate image to copy or continue a repeating pattern / Calculates missing elements to complete a simple pattern: Begin with a whole group **SMART Notebook activity** on the IWB which requires students to select from a range of hairstyle images to copy a pattern. Decrease/increase the number of choices/distracters to suit your learners. You can also vary the number of sequences within the pattern to suit your learners. To support some learners you may initially modify the activity to allow the students to match the images in order to copy and complete the repeating pattern.
2. Recognise, describe, create or continue a repeating pattern / Calculates missing elements to complete a simple pattern: Start with a whole group **SMART Notebook activity** on the IWB. Using the various hairstyle images found in the Notebook file created or, if suitable, allow the students the opportunity to create the initial sequences of a repeating pattern. From here have other students select from a range of hairstyle images to continue and complete the pattern. To assist students distinguish between the various hairstyle images highlight the different characteristics of each hairstyle. Decrease/increase the amount of choices/distracters to suit your learners. You can also vary the number of sequences within the pattern to suit your learners. Alternatively, the pattern may contain missing images which require the students to select the correct image to complete the pattern.
3. Recognise, describe, create or continue a repeating pattern / Calculates missing elements to complete a simple pattern: To begin, each student uses **Smart Notebook** to create a hairstyle using a blank character template. Include the students' newly created hairstyles with a number of pre-made styles. Using **Smart Notebook** students create a repeating pattern from the various hairstyles available. Model the steps involved in the creation of a repeating pattern.
4. Uses the term 'is the same as' to describe equality of groups: Start with a whole group **SMART Notebook Activity** which allows the students the opportunity to learn the concept 'is the same as'. Students are initially presented with a range of various hairstyle images with each image having an identical pair. Students select and match the pairs. On completion introduce the class to the term 'same'. Have students point out the images that are the same. Select a hairstyle image and ask the students "can you show me the 'same'?"

Conclusion:

1. Selects an appropriate image to copy or continue a repeating pattern / Calculates missing elements to complete a simple pattern: Students return to their workspace to complete an individual learning task. The task is based on the Notebook activity and requires students to cut and paste a range of hairstyle images to copy a number of repeating patterns (*see additional resources*). If cutting and pasting is not suitable, cut and laminate the hairstyle images and then allow the students the opportunity to select from these images to copy a number of repeating patterns.
2. Recognise, describe, create or continue a repeating pattern / Calculates missing elements to complete a simple pattern: Following on from the IWB activity students return to their personal workspace area to complete an individual task. The task reinforces the content from the IWB activity where students are required to cut and paste a range of hairstyle images to continue a number of repeating patterns (*see additional resources*). If cutting and pasting is not suitable, cut and laminate the hairstyle images and then allow the students the opportunity to select from

these images to copy a number of repeating patterns.

3. Uses the term ‘is the same as’ to describe equality of groups: Students return to their workspace to complete an individual task which is based on the Notebook activity. Firstly, they sort through a range of hairstyle images to find the matching pairs (*see additional resources*). Following this students are provided with a number of groups of objects/images. They are then required to sort and count these groups in order to find the one with the same number. Students are encouraged to use the term ‘same as’ (*see additional resources*).

Assessment

The student will:

Indicator: Select an appropriate image to copy or continue a repeating pattern / Calculate missing elements to complete a simple pattern.

- Match images of various hairstyles
- Match images to copy a repeating pattern
- Select an image from a choice of 1, 3 or 5 to complete a repeating pattern

Indicator: Recognise, describe, create and continue repeating patterns / Calculates missing elements to complete a simple pattern.

- Select an image from a choice of 1, 3 or 5 to complete a 2-part repeating pattern
- Select images from a choice of 1, 3 or 5 to continue a 2-part repeating pattern
- Select an image from a choice of 1, 3 or 5 to complete a 3-part repeating pattern
- Select images from a choice of 1, 3 or 5 to continue a 3-part repeating pattern
- Identify a repeating pattern when presented with a number of patterns
- Create a 2-part repeating pattern
- Create a 3-part repeating pattern

Indicator: Use the term ‘is the same as’ to describe equality of groups.

- Match an image to its corresponding pair.
- Identify a matching pair of images from a number of choices
- Select an image when asked to find the ‘same’
- Use the term ‘is the same as’ or ‘same’ to describe matching images
- Sort a number of groups of objects into like groups based on the amount of objects in the group
- Create 2 groups of objects that are the ‘same’
- Use the term ‘is the same as’ or ‘same’ to describe like groups

Resources

PlayStation Move
 Start the Party
 TV/Interactive Whiteboard
 SMART Notebook activities
 Images of various hairstyles
 Images of different groups of objects

Extension Activities

Extension activities can be found in the Holroyd / Mary Brooksbank Numeracy Framework

