

Foundation Stage Marvellous Maths Week 6: Patterns

Tuesday

I hope you all had fun finding patterns around your house yesterday. Today we are going to be making our own patterns. Now, you can make patterns out of anything. You can have patterns of things that are different colours, things that are different sizes, things that are different shapes. Absolutely anything that you can think of, you can make a pattern out of it. I'm going to be using colours but it is much more fun to make patterns out of things you can move around, like Lego bricks or buttons or beads. So when you do your own learning after watching this video, if you can, find some items that you can move around on your table to make patterns with.

Right, the first thing when we make a pattern it to decide on the set of things that we are going to repeat over and over and over again to make it a repeating pattern. So, I have decided to make a pattern that has got three colours in it, it's my colour pattern. My set of things that I'm going to repeat over and over again are green, blue, blue, I'm going to have two blue parts in my pattern. Then I'm going to finish with a red. So this is green, blue, blue, red. SO that is the set of colours that I'm going to repeat over and over again to make my repeating pattern. I'm just putting the lids on the bottom of my pens so I don't drop them. We call this the unit of repeat. That's its special maths name, the unit of repeat. It is the unit, or set, of things that we repeat over and over again to make our pattern.

So, we have to make sure that when we repeat it we make the next set exactly the same. So my next set will need to be green, blue, blue, red. So I'll do that, green, blue, blue, red. Those two units are exactly the same, the same set of colours. And then I'll just do it again. Green, blue, blue, red. I'm going to repeat it once more, green, blue, blue, red. So we can see that the set of colours I chose, green, blue, blue, red, that's my unit of repeat, I've used them over and over and over again and each set is exactly the same. That's how we know it's a repeating pattern because the section, the unit that we are repeating, never changes.

When we're working with patterns we sometimes talk about the pattern rule. The way we share a pattern rule is that we give each part of the pattern a letter from the alphabet. Always in order, so the green part of my pattern is the first part of my unit of repeat, I'm going to circle the unit of repeat so it's really easy for us to see, so we would call it A. The next part of my pattern is the blue patch, so that is B. There are two blue patches, they both have the letter B underneath them. So, ABB, because they are the same colour, and then our red will be... if you said C, good job that's the next letter of the alphabet. So there are three colours in my pattern, so I need A, B and C. One of those colours is used twice which is why the letter is written twice. So, green, blue, blue, red, the rule of the pattern is ABBC. If I had more colours in my pattern I would just use more letters from the alphabet. Always in order so if I had another colour it would be D in the pattern rule, another colour after that would be E and we keep going until we run out of letters of the alphabet.

Using our pattern rule, we can think of another pattern that has the same rule. I can see there are three letters so I know my pattern needs to have three parts to it, it needs to have three parts to the unit of repeat. I am going to do some shapes. I'm going to do my pattern all one

colour this time but I'm going to follow the pattern rule using some shapes and symbols. So for A I'm going to do, I'm going to do a circle. For the B part of my pattern I'm going to do a wiggly line. I know I've got to do two of these because the pattern rule is ABB, so two of whatever is the B symbol or colour or shape. I need one more shape, I'm going to do a triangle. So the unit of repeat in this pattern is circle, wiggly line, wiggly line, triangle. That unit, I need to repeat over and over and over again to turn it into a repeating pattern. So I'm going to concentrate. Circle, wiggly line, wiggly line, triangle. Those two units of repeat match. I'm going to repeat them again, circle, wiggly line, wiggly line, triangle. Circle, wiggly line, wiggly line, triangle. It's a completely different pattern but it has the same pattern rule. The unit of repeat, the set of symbols in this pattern that are used over and over and over again, follows the same pattern rule, ABBC, as my colour pattern. I'll circle the unit of repeat so you can see it there.

Perhaps you could try following my pattern rule when you make your own patterns with loose parts. Maybe you can make your own patterns and let me know what the pattern rule is that you've created so that I can try and make a pattern following your rules. It is a little but tricky, pattern rules. Don't worry. The important thing to remember is that the unit of repeat is the set of things, colours, shapes or symbols that are in your pattern that you use over and over and over again to make it a repeating pattern. We can practise pattern rules when we are all back at school together. We'll look forward to seeing your work, have lots of fun making your patterns. Bye-bye.

Transcriptions for other maths videos will be uploaded soon.