Microscopes

Classroom Ideas

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• Developing descriptive skills - Children use the microscope to look at a section of a piece of artwork in detail. They should take snapshots of the areas they find most interesting. The images can be linked to a topic, works of art or created by the class themselves. Can they describe their chosen section using challenging descriptive language?

• Exploring patterns – Children explore a range of fabrics under the microscope and capture images of different patterns of weave. They can then choose the pattern they like most and manipulate it using a graphics program on a computer. Once they are happy with it they can create a repeating tiled pattern which can be printed and used as wrapping paper.

• Developing topic vocabulary - Ask children to collect interesting objects perhaps from a school trip or maybe relating to a class topic. Allow them time to consider the colour, texture and smell of the items and then investigate closely using the Easi-Scope. Take pictures of each object and display alongside the original item with supportive work such as word lists, descriptive writing etc.

• Investigating materials – Use the microscope to capture images from different types of fabrics. How do natural fibres compare to manufactured fibres? How do they differ and how are they the same? Can children use their findings to recognise the origin of other fibres?

• Reinforcing vocabulary - Use the Easi-Scope to take close-up pictures of parts of the body, hair, palm of the hand, nails, inside the ear, teeth etc. Print these images and ask the children to place them in the correct positions on a body map, helping them to identify, name and label parts of the body. Extend this to MFL learning by naming them in French or Spanish instead.

• Investigating food – Use Easi-Scope to explore different types of food. Look at fruit or vegetable snacks. Examine the skin or peel and then look at a sliced piece. What patterns or shapes can children find? Can they recognise different fruit or vegetables from captured images? Captured images could be turned into art work by recolouring or creating repeating patterns.

• Developing team working - Provide a feely bag of familiar objects and choose children to pick one item at a time from the bag - try to keep the whole object hidden from the rest of the group. Give the Easi-Scope to one child and ask them to hold it very close to the object. Can the group guess what the object is straight away? Or do they need the child with the Easi-Scope to move a little?
• Hypothesising – Collect leaves from trees at different stages of decomposition. Look at them using Easi-Scope. Can children spot how the changes gradually occur?

• Investigation skills – Look at hair from different people. Is it all the same? How does differ? Compare straight hair and curly hair. Compare different colour hair.

• Hypothesising – Look closely at different coins. Look at the edges, the lettering and the markings in the metal. Can children find the tiny text that can’t be seen with the naked eye? Can they think why it is there? (NB - Newer coins and notes have more anti-forgery measures. Both old and new coins should be available to explore.)

• Exploring screen technology – Carefully place Easi-Scope on a computer screen. Adjust the focus to find the red, green and blue pixels the screen is made from. Changing how these pixels are lit changes the image the user sees. Can children write a rule for this? Give them grid lined paper and ask them to create their own image from pixels. They should use a square area 8x8 and colour in squares to create a simple image.