



Science

LC: Can you use bananas as a communication tool?

Task: write a message, draw a picture or create a design on the skin of a banana using a cocktail stick

Success Criteria: The winner will be the design that impresses the science department the most – photographic evidence will be required as proof.

By using a cocktail stick* to bruise the banana skin, some of the banana's cells become damaged. This allows oxygen from the air into the cell, which in turn caused the enzymes in the cells to start to oxidise chemicals in the cell.

Melanin is produced which is brown in colour. This means that wherever you damage the cells will turn brown and make your message or design visible.

*Cocktail sticks are sharp, don't put them near your skin!

You will need:

A banana and a cocktail stick

Method:

- 1. Use the cocktail stick to mark a pattern, draw a picture, or write a message on the banana skin. Press firmly enough to dent the skin, but not too hard to break through the skin.**
- 2. Wait for the message, picture or pattern to appear.**
- 3. Submit a picture of your creation!**

Why does the damage to the cells cause a change in colour?

Does this happen in any other fruits or vegetables?

You should have discovered that where you damaged the banana's cells is where the colour change from yellow to brown has occurred.

Are there any other areas of the banana that are brown? Why might that be?

How many different designs have you tried?
Can you think of any changes you could make?

Next, can you investigate the effect of damage on the skins of other fruits or vegetables?