



Hinchingsbrooke School Science Department

KS3 Homework Task

Life and Living Processes HW1 – Food additives link to behaviour

Date set:

Date Due in:

On the following page is information related to the task. You may need to do additional research to achieve the maximum level possible.

- Answer all questions, if you use PowerPoint please print off and stick in your book
- Fill in your details below

Name:	Form:
Teacher:	Science Set:

Feedback from teacher:

Student comment:

Food additives link to behaviour

For many years, some parents have been claiming that what their children eat affects their behaviour. Now scientists say they may be right. A study by Southampton University, paid for by the Food Standards Agency, found that food additives can change a child's behaviour.

E102	Orange colouring in drinks
E104	Yellow food colouring
E110	Yellow colouring in drinks
E122	Red colouring in jellies
E124	Red colouring
E129	Orange/red food colouring
E211	Preservative

The study looked at the effect of additives on 300 children, aged either three years old or eight to nine years of age, chosen at random. Each child was randomly given one of three drinks. Mix A was a potent mixture of the colourings and additives, as shown in the box on the left. Mix B was a drink that contained approximately the average daily intake of these additives for the child's age, and Mix C was a 'placebo' drink

with no additives in it at all. The children's concentration and hyperactivity levels were measured before and after having the drink.

The study showed that Mix A, with the high levels of additives, caused a 'significant' increase in impulsive behaviour and loss of concentration compared with the placebo drink. The older children showed some adverse effects from the mix with fewer additives, but this varied hugely from child to child. Researchers said that it was not possible to say which additive, or additives, was causing the effect and parents would prevent many other should not expect that removing all additives from food all hyperactivity disorders. They said that there were many other factors involved, including genes, being born prematurely, environment and upbringing.



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QUESTIONS

Describe a 'food additive' in your own words and list reasons why they are used.

Why is it important that the children in the study were chosen at random?

Previous studies have looked at the effects of individual additives. Why is this study an improvement on those earlier studies?

What other factors may influence whether or not a child has a hyperactivity disorder?

Challenge

Design a poster that gives guidelines about a healthy diet for children, to display at a mother-and-toddler group. The poster should show what foods to eat and what foods to avoid or keep to a minimum. Include information about why the foods are good or bad.