

**Main subject:**  
Product Design

**Linked subjects:**  
1. Physics 2. Psychology

**Year**  
8

## Mechanisms

### The aim of this extension task is to:

The aim of this task is to investigate and analyse existing CAM toys. You will also get the opportunity to design a solution for a potential CAM toy that would be aimed at small children.

**Why Not?**  
It's just for fun!

### Context of task:

Education in the early years of development in children has always been an exceptionally popular and growing part of the toy market. Parents are becoming increasingly aware of the importance of a child's learning experiences when they are young and the importance of this learning for their future development and learning.

A child's senses are a vital part of the design thinking when companies are thinking about designing a new toy. Some of the 'Early Years' skills that they are looking to address are sight, touch, taste and smell. They are also looking to improve 'Fine & Gross Motor skills' in children. You will often find good examples of products that focus on these skills and senses in your local toy shop or supermarket.

### Questions / Issues to address:

1. Research and explain in a couple of paragraphs what is meant by the terms 'Fine and Gross Motor Skills' and why this is important in child development. Use Psychology teachers to help with this!
2. Pick an existing example of a children's 'moving' toy and analyse it through the use of ACCESS FM. Explain why the designers have included some of the main features and how they aid a child's development.
3. Look at the picture of the toy below. Draw a 2D illustration of how the mechanism inside makes the heads of the ducks go up and down. (Use your automata booklet to help with this and/or '[www.technologystudent.com/joints/mecty1.htm](http://www.technologystudent.com/joints/mecty1.htm)'.) Physics can help you draw the cam!
4. Design your own 'Pull-a-long' child's toy, showing how parts move and explain why it might appeal to parents and give a child an opportunity to learn. Use colouring pencils.
5. Present your ideas to the class to broaden their knowledge of how children learn. You could use some youtube videos to help illustrate your ideas.



### Expectation

Combine your findings into a maximum of a 4 page power point presentation. You could add any videos to help illustrate!

### Deadline:

Please ensure that you have completed this work by the end of the current module.

### Note to students:

It is not essential, but you are encouraged to extend this task into an area of your own particular interest. If you would like to do so, please discuss your ideas with your teacher.