Sam's pop-up card*

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1 TECHNOLOGY

2 Grade 4

3 MY OWN POP-UP CARD

4 Module 15

5 SAM'S POP-UP CARD

5.1 Activity 1

5.2 To apply the technological process completely [LO 1.1]

In this learning unit you are going to research pop-up cards (1.1), design (1.2), make (1.3) and evaluate (1.4) them.

- Research

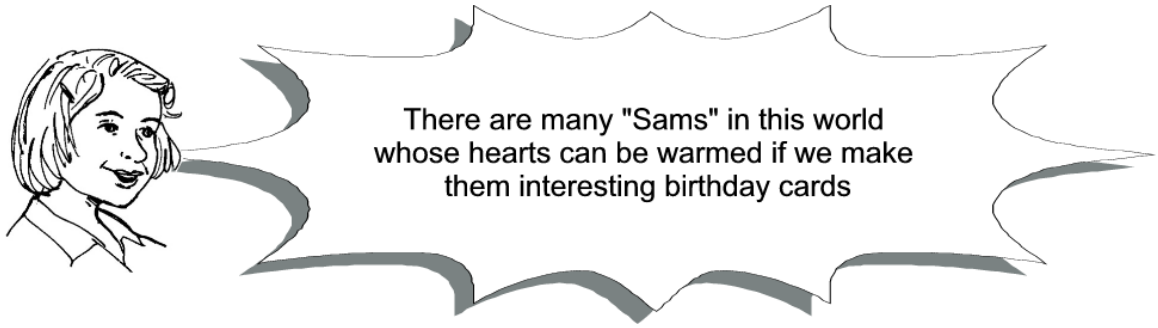

Figure 1

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A What is The Need?

First you have to determine the need, submit a design proposal and analyse the problem further, and then compile the final specifications.

B Make a proposal that you will design

I'm going to design a …… (type of card) for
……(user) to use in or at the
…… (place) for ……
……(use of).

C Analyse the problem further

The following W-questions will help a lot. Ask your own questions as well.

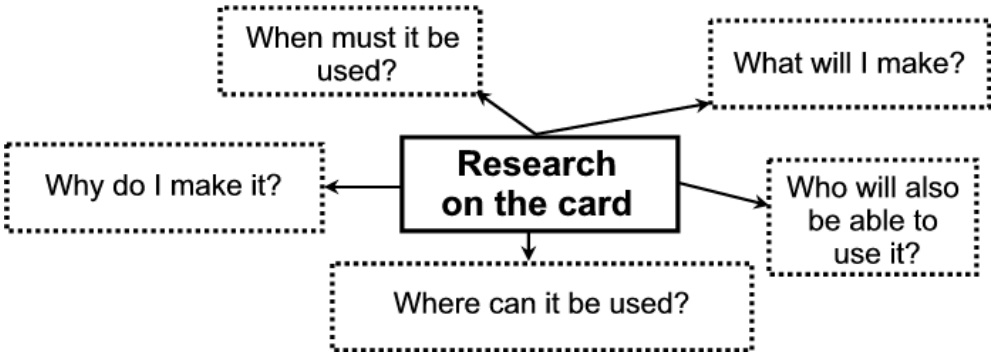

Figure 2

D Compile a list of specifications

Consider the following:

- How **big** must the card be?
- What **materials** am I going to use?
- Which will be the **cheapest**?
- How will I manage to make it within the **allocated** time?
- What will it look like?
- Will I make something **creative/unique**?
- **Durability**: Will the card be strong enough?
- I must be able to make it **myself**.
- What **shape** will it be?
- What **finishing touches** will I use?
- Will my card comply with the **purpose** that it was designed for?
- Will I be able to **market** or sell my card?

Now you can begin to design the card!

- Design

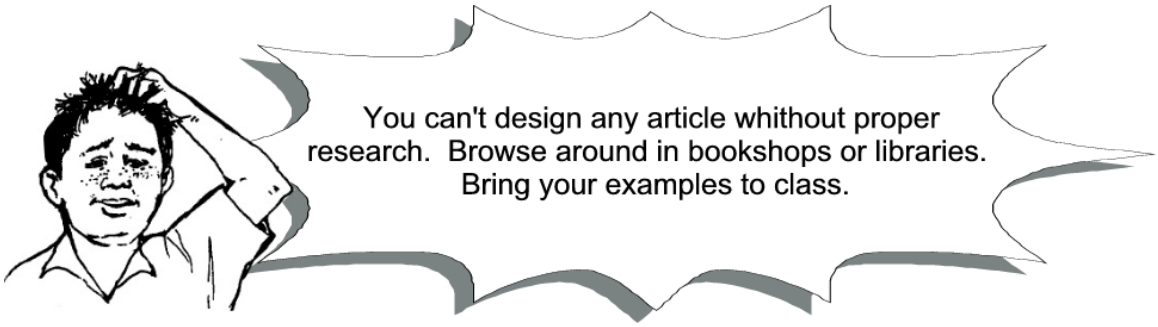

Figure 3

A Discuss your ideas again.

- Think on paper. More possibilities will give you a better chance of finding a good solution.
- It is unlikely that your very first idea will be the best. Try to draw at least THREE possible solutions (ideas).

Figure 4

Figure 5

B Decide on your best idea!
Hints

- **Communicate** your ideas. Ensure that it complies with your design proposal.
- Make free-hand sketches with annotations. Change constantly.

Ask critical questions while you draw:

- Can it be **simpler**?
- Which **moving parts** will there be?
- How will I **connect** the different parts?
- Am I using the best **materials**?
- Is it **affordable**?
- What does it **look** like?
- Can I make it **myself**? (In time?)

Make neat final drawings and decorate them in colour. You may use drawing tools.

- Make

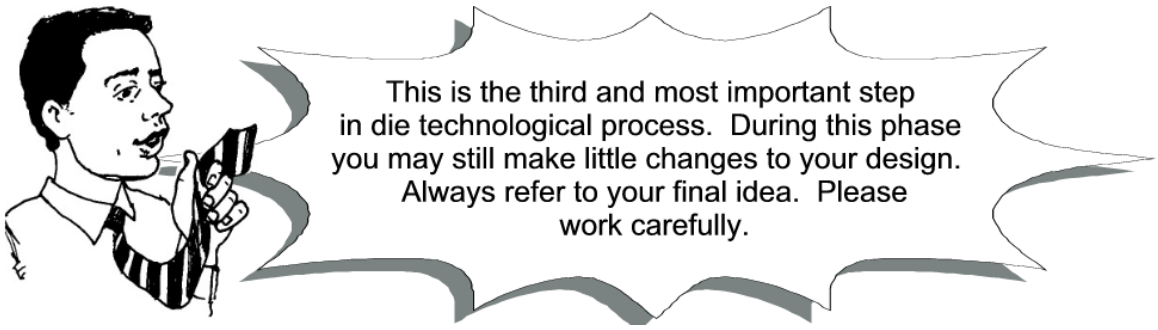

Figure 6

How to make a pop-up mechanism

Figure 7

Figure 8

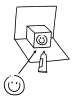

Figure 9

- Fold a white, blank A4 paper in half.
- Make two parallel cuts in the paper.
- Open the paper with the cut out strip forming/making a 90° angle to the inside.
- Paste a face or any other picture on the front of the strip.

6 AHow to plan

- When you fail to plan, you plan to fail!

TIME is very important - therefore we must plan properly.

So many things need to be done at the same time, therefore you will have to organise your work in such a way that you won't waste any time and energy. We will set up a scheme so that you will utilise your time effectively. It makes your work easier. Good planning saves time and ensures a better product.

Actions Materials Tools

6.1 (i)Which actions must I complete?

Tick off as soon as it is completed.

		make certain parts				glue
		finishing touches				round off
		paint				test

Table 1

(i) Which **materials** will I use?

Evaluate and compare the different materials that you will use with regard to:

- availability;
- costs;
- manageable or not?
- durability;
- colours.

(iii) Which **tools** will I use?
B Work safely!

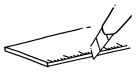

Figure 10

Safety knife

Figure 11

Be very careful when you cut paper or cardboard. Use a safety ruler with the safety knife.
1.4 Evaluate your products and work
Be honest about your mistakes. Learn through it.
A First discuss the questionnaire with your partner:
Did I do good **research** and **planning**?
……..

- Can I **handle** and **solve** the **problems** that arose during the **manufacturing process**, easily?

……

- Does my card comply with its **specifications**?

……

- What are the **strong** and **weak points** of my card?

……

- Will I do the **same next time** if I have to repeat the project?

……

- How can I **improve** my design?

……

- **Am I satisfied** with my pop-up card? Why?

……

- What do other people think of my card?

. . . . . .

- Did I **enjoy** making the card?

. . . . . .

- What problems will a less privileged person possibly encounter when making the card?

. . . . . .

- What are the disadvantages of the cards?

. . . . . .

6.2 Assessment

6.3 LEARNING OUTCOME 1: Technological Processes and Skills

The learner will be able to apply technological processes and skills ethically and responsibly using appropriate information and communication technologies.

6.3.1 Assessment Standard

We know this when the learner:

1.1 finds out, with assistance, about the background context (e.g. people, environment) when given a problem, need or opportunity.