



The Universal Widget

PURPOSE

To develop creative thinking, teamwork and costing skills

LEARNING OUTCOMES

The activity will help the students to develop their ability to:

- think creatively to meet the needs of a brief
- analyse costs (*time, money, complexity of production process, ethical*) of different options
- design an innovative product to meet specific needs
- present their ideas in an original and persuasive way
- work as part of a team to meet a project brief and deadline

TIMING

- 1½ hours

TYPE OF ACTIVITY

- production and trading

GROUP SIZE

- whole year group
- whole class
- tutorial group

USE

- stand-alone activity
- part of off-timetable session

PREPARATION & MATERIALS

- make students aware (*e.g. through a list, briefing etc.*) of which groups they are in (*preferably mixed gender, ability, ethnicity and non-friendship groups to reflect real life*)
- enough *Briefing Sheets* for each group to work effectively and the PowerPoint version if appropriate
- pencils, ruler, rubbers, marker pens, rough paper and sugar paper, flipchart paper or similar for each group
- access to materials and equipment such as scissors, glue sticks, art straws, string, paperclips, thumb tacks (*split pins*), sticky tape, reusable adhesive (*e.g. Blu Tack*) and A4 or A3 card for each group (*e.g. from a Supplies Desk*)
- enterprise skills audit and activity evaluation materials as appropriate

Running the session

1. Give out the *Briefing Sheet* and go through any issues that need clarification (*e.g. the equipment and materials available for making the Universal Widgets, the formats for any presentations etc.*).
2. Ask the students to suggest some of the global problems facing us (*e.g. shortage of food/water in some regions, disease, global warming etc.*). Encourage them also to think of less serious problems (*e.g. car parking, walking the dog in bad weather, extracting splinters, finding lost items, weeding, sneezing when both hands are full, map reading when travelling south, what exactly can be done with used staples, etc.*) in order to fire their imaginations and get them thinking more innovatively.
3. Allow the groups to start discussing their plans. Open the Supplies Desk (*if used*) after 5-10 minutes. Give time reminders as appropriate and as the deadline approaches.
4. Stop the activity once the deadline is reached. Allow the groups to make their presentations and invite comments and questions from the 'audience'.
5. Debrief the students.
6. Evaluate the activity with the students and others as appropriate.
7. The posters and 'prototypes' can be displayed in school if appropriate.

Debrief

The presentations allow the students to ask questions and debrief each other. If appropriate, take the opportunity to explore some major global issues (*e.g. the cost of manufacturing in terms of using up non-renewable resources, impact on the environment, exploitation of human resources etc.*).

Discuss the impact of real 'off-the-wall' inventions (*e.g. wind-up radio, Velcro, post-it notes, space-hoppers, micro-scooters etc.*).

There are likely to be a number of other issues that could be explored. These may include:

- Explain the different functions of your Universal Widget.
- Why are these crucial to global survival?
- What was the total cost of your Widget?
- Could you cut that cost further? If so, how?
- What pleases you most about your invention?
- How would you improve it if you could do it again?

Less serious questions, of course, might address:

- Can we buy it in different colours?
- Which language(s) will the instructions be written in?
- What's this week's special offer?

Continued...



Variations

You can vary the activity and alter the degree of difficulty by:

- issuing finite quantities of materials (*with able students this can make an impressive finale to an Enterprise day*)
- pricing the materials and equipment and allocating the groups a budget (*tight or generous as appropriate*) to work with (*transactions could be made with 'money' or 'on account'*)
- requiring a poster only, and no prototype (*this variation requires minimal materials and less time, say 45-60 mins*)
- running the activity over several tutorial sessions



The Universal Widget

Your group has designed the most useful and desirable thing ever invented – the Universal Widget. It can be used in hundreds of ways, is simple and inexpensive to produce and is environmentally friendly.

You have been invited to display your invention to the United Nations.

You must:

- **produce a completed, fully functioning Universal Widget**
- **prepare a poster/flier to show:**
 - its many possible uses for business, industry, leisure, education, sport etc. across the Universe
 - step-by-step instructions for the manufacturing process



You can use only the materials that have been provided and you have an extremely tight deadline, but in the interests of your company, not to mention Global Survival, it's vital that you complete on time.

Counting the costs

Assuming that each component costs \$5 and each unit of energy (represented by one step in the production process) costs \$2, you need to indicate on your poster or flier the total production cost of each Widget.

The contract to produce Universal Widgets will be awarded on the basis of:

- **multi-function capability and ingeniousness of the invention**
- **cost**
- **simplicity of design/production**
- **looks**
- **success of poster/flier in putting across the selling points**

The whole world awaits the unveiling of your amazing invention – the future of the Galaxy is in your hands!!