

The Journey

Post-Show Lesson 4

'To be able to use technology to research and design products'

For this activity the use of ICT is essential.

Curriculum for Excellence experiences and outcomes covered.

Through discovery and imagination, I can develop and use problem-solving strategies to meet design challenges with a food or textile focus.

TCH 2-11a

Having evaluated my work, I can adapt and improve, where appropriate, through trial and error or by using feedback.

TCH 2-11b

Opportunities to carry out different activities and roles in a variety of settings have enabled me to identify my achievements, skills and areas for development. This will help me to prepare for the next stage in my life and learning.

HWB 2-19a

Organisation of Pupils: Whole class, groups, individuals.

Learning Intentions	Success Criteria
<ul style="list-style-type: none"> • To be able to use technology to research and design products. 	<ul style="list-style-type: none"> • Work collaboratively, make a prototype, list features and benefits.
<p>Key Learning and Teaching Points:</p> <ul style="list-style-type: none"> • Good products are often very simple • Research of what is available is essential • Features are elements of the design • Benefits are how this product will enhance the situation • A prototype is a model of the product 	

LESSON PROCEDURE - Interactions and Communications

Introduction: C. 5-10 mins

The Teacher to introduce the learning intention and success criteria.
Teacher to show the Dragon's Den Children in Need clip from YouTube.

Development: C. 20-40 mins

Teacher will give the children a design brief of creating a new piece of reflective equipment for children.

Children will be asked in pairs to find out the kind of things already available using the internet and feedback their findings. The Brightkidz website may be a good prompt. www.brightkidz.co.uk

They will then be shown their design brief and asked to work collaboratively to draw an image of their design and present them to the rest of the class.

The designs will then be displayed in the class and pupils will be invited, on post-it notes, to offer feedback on each others' designs.

Teacher will then discuss what a prototype is.

Groups will then work with feedback given to turn their design into a prototype.

Groups will then be asked to pitch their design in a Dragon's Den style pitch to class teacher, depute head, and head teacher. (This activity could be spread over two lessons).

Extension Activity:

For more able, higher attaining students and fast finishers and as a useful on-going reference point it would be helpful to utilise, where appropriate, online resources. These include: Streetsense2, JRSO and Streetwise Guys. These sites are aimed at upper primary school children). In particular, there is a focus on children in the transition period from primary to secondary, when they are most at risk. The websites use interactive games to educate young people about road safety in a fun way. They can be used in the classroom, whilst teaching road safety.

www.streetsense2.com

www.jrso.com

www.streetwiseguys.co.uk

Plenary C. 5-10 mins

HOTS Questions:

- What can you remember about what we were learning today?
- How would you explain what we were learning today?
- Why do you think we were learning about it?
- Can you give me an example of how you met your success criteria?
- What conclusions could you make about what we were doing today?
- Where could you use what we have learned today elsewhere?

Significant Resources:

- Dragon's Den Children in Need clip on YouTube
- Brightkidz website: www.brightkidz.co.uk
- www.streetsense2.com
- www.jrso.com
- www.streetwiseguys.co.uk
- Resource 4 – Design Brief (below)

Resource 4 - Design Brief

The groups need to discuss, explore and design a new piece of safety equipment.

This should include/be made from:

- Reflective material
- Be light and portable
- Be attachable to clothes/bikes
- Be useable by both pedestrians/cyclists
- Be affordable