Task: Windsock

| Approach: | One to one | Task |
|------------|---|------------|
| Focus: | Investigating, applying and evaluating design | |
| Resources: | Video recording on laptop computer, decorativ | e windsock |

NEMP

% responses y8

y4

Questions / instructions:

This activity uses the computer.

YEAR 8 ONLY:

Click on the Windsock button. [No sound]

We're going to watch a video of one type of windsock, which is used to help pilots when taking off and landing their planes.

Click on Video 1 button.



- 1. How might the windsock help the pilot with taking off?
 - tells pilot where wind is coming from plane lands/takes off better into wind
- 2. What might the dangers be if there was no windsock?

strong side/cross winds dangerous for landing or taking off

Now let's have a look at a video of another kind of windsock. This one is a decorative windsock.

Click on Video 2 button. [no sound]

YEAR 4 ONLY:

We're going to watch a video of a decorative windsock.

Click on the Windsock button.

[Same video as for year 8; no sound]

YEAR 4 & YEAR 8:

Here is that windsock. Have a careful look at the windsock now.

Hand out windsock. Encourage the student to have a good look at it.



Commentary:

3. Try to explain to me how somebody went about making this. Try to describe all the things they would do - starting from before they actually began to make the wind sock - then the things they did as they were making it.

4 & 8

% responses v4

y8

| they did as they were making it. | | |
|---|----|----|
| Why is the windsock made like this? | | |
| conceiving idea/mental image | 19 | 36 |
| developing or finding an appropriate pattern | 18 | 34 |
| Number of materials mentioned: 7 | | 0 |
| • fabric – first colour 6 | 3 | 3 |
| • fabric – second colour 5 | 7 | 12 |
| • fabric – third colour 4 | 15 | 14 |
| • stiffening/cardboard 3 | 24 | 23 |
| • thread for sewing • string for hanging 2 | 27 | 2 |
| metal swivel/swizel | 14 | 1 |
| 0 | 10 | 7 |
| To what extent did the explanation deal | | |
| To what extent did the explanation deal with the functionality of the windsock: | | |
| (includes consideration of important characteristics | | |
| of materials – colour, strength, durability) high | 2 | 5 |
| medium | 15 | 2 |
| low | 83 | 7 |
| Description of necessary work to | | |
| prepare components to fit design | | |
| - cutting and shaping: | | |
| detailed description of almost all steps | | 1 |
| detailed description of some steps | 4 | 1 |
| some basic detail | 31 | 3 |
| no clear ideas/vague outline only | 41 | 2 |
| no relevant response | 24 | 2 |
| Description of process of joining | | |
| components to make complete | | |
| windsock: (particularly sewing) | | |
| detailed full description | 0 | 4 |
| covered several steps, but omitted some too | | 2 |
| some basic detail (e.g. sew it) | | 4 |
| no clear ideas/vague outline only | | 1 |
| no relevant response | 15 | g |
| student energifically addressed the issue | | |
| student specifically addressed the issue of making the windsock decorative | | 3 |
| or making the windbook decorative | 22 | -0 |
| Total score: 12–21 | 4 | 1 |
| 9–11 | 18 | 2 |
| 6–8 | 31 | 3 |
| | | |

3–5

0–2

36

11

19

7

Only about 20 percent of year 4 students and 40 percent of year 8 students gave at least a somewhat detailed account of how the windsock would be planned and made.

