## Windmills

Approach: Independent

## Focus: Writing instructions.

Resources: Picture of windmill, paper cutouts, glue stick.

## Questions/instructions:

Give one picture, set of cutouts, glue stick and answer sheet per student.

This activity is called "Windmills".
If you need any help you can ask the teacher.
You have some pieces of paper in the plastic bag.

Use the paper to make a windmill that looks like the picture.

Glue your windmill here.
Imagine someone does not have the picture to help them and has never seen a windmill before. Write instructions on how to make the windmill picture.
$\left.\begin{array}{rrrr} & \begin{array}{c}\text { \% responses } \\ 2002(98) \\ \text { year } 4\end{array} & \text { 2002 (98) } \\ \text { year8 }\end{array}\right\}$


## Commentary:

A much higher percentage of year 8 than year 4 students was able to give quite complete and clear instructions. Whereas only 12 percent of year 4 students scored 9 or more (out of 15 ), 49 percent of year 8 students met that level of performance. Thirty percent of year 4 students scored 0 . There was no change between 1998 and 2002, for year 4 or year 8 students.

## YEAR 4 - HIGH RANGE:

Put the green rectangle about an inch from the bottom of the page then put the fat side of the red shape above the green rectangle without any gaps in between then get the yellow sticker and stick the blue rectangles on to the yellow sticker putting the thin pointy edges on the sticky side then stick the sticker and the triangle $1 / 3$ down in the redshape then glue everything in plac
cut out a red recktangule and glue it to a pice of paper. Then cut out a green smaller recktangule and glue it to the bottom of your red recktangule. Then cut out four blue big tringles. Stick the pointed ends all together and glue them at the top of the red recktangule. Then stick a yellow sticker on the pointed parts of the blue tringles and you have a windmill.

Step I. Glue the red piece in the middle with the smallest piece facing up.
Step 2. Glue the green piece on the bottom of the red piece but make sure that the longer sides are facing up.
Step 3. With the 4 triangles Glue the top points facing each other.
Step 4 last of all Glue the yellow circle on top of the blue points. ! YOURDONE!
glue the redshape, with the smaller end at the top, onto the paper. glue the four blue trianglus in a t shape, with their points facing in a little way below the top. Stick the yellow circle onto the place where the points meet. finnally glue the green oblong onto the bottom of the windmill.
I. First you get a blue pies of paper and make a triangelshape.
2. Get a yellow paper and cut the shape cacel [circle].
3 that redshape get that colour anad cut it out.
4. get a green piece of paper and cut a rattangel [rectangle] out.
5. glue the redshape and put it on a wite paper.
6 get the yellow cercel and put it at the top.
7 get the blue triangel and stike it around the cercel.
8 then get the green rattagel and glue it under redshap. you will have a willmill.

## YEAR 4 - MID RANGE:

first you glue the green part on the bottom of the page then put the red part above that and put the yellow sticke about quater way down on the red part and then tuck and glue the blue parts under the yellow sticker. put one blue part on both sides and up and down.

Draw a rectangle at the bottom of your page On the eage [edge] of it draw like a big triangle without a ponity bit. The draw a triangle in the middle on your half trangle on pointing out of the left and right side and on up the top. In the middle of the points put a circle.
put the green thing on then put the big red thing on top stick on the sticker and put on the blue thing up, down, left, right
there now youve' made a WI NDMILL
I. Glue the red piece on the paper
2. put the green peice under the red peice
3. Glue all the blue bits on the red bit

4 stick the round bit on the $r$ bit

You will need windmill blades and the windmill. Put the blads up the top of the windmill and something for it to stand on.

First get a circle sticker and then get 4 triangles then you can get a oblong but have one fatter end andstick the sticker on the thinner end of the oblong and put the triangles on. And last you put on a little oblong.
first get the green bottom and glue it onto the red then get one blue trianglie and glue it 4 inches from the top put all four on then put the yellow circle stice [stick] it on good work now youready THEEND
put the green papper side way. put the red papper piont from the top to the bottom. make a cross at the top of the red papper. And put the yellow papper in the cross

## Windimills: continued

## YEAR 8 - HIGH RANGE:



Take the red piece of paper and glue it in the middle of the paper. Now take the green strip of paper and glue it at the bottom of the red piece of paper (just sitting on it) make sure you put it longways and the fat end of the red piece is at the bottom. Now get the blue triangles and glue them on the top part of the red piece of paper in a circle form but so that all the blue points are touching each other (make sure there is a blue triangle sticking out North-South-east and west). Now cover the blue points with the yellow sticker.

Empty out the contents of the small plastic bag. Take the red peice of card and place glue on one side place on middle of paper vertically with the smaller end pointing up. Place some glue on the green paper and place horizontely on the bottom of the peice or red card.
On one side of a piece of blue triangle card put glue place it on the red card so about 1.5 cm is over the red card and the point is pointing toward the green then glue 1 side of another triangle and place it so the point is pointing toward the point of the triangle that is already glued on(the whole triangle is over the red card almost touching the point of other triangle. Then glue a blue triangle with the point facing left, nearly touching the 2 other points. Do the same with the 4th triangle except with the point facing right. Finally place the yellow circle over the points of triangles.

- 1st of all take the red bit of cardboard and place it on your page with the larger end a the bottom of your paper.
- Then put the green oblong piece of paper so it seems as if the red piece is sitting on one of the long ends of the oblong.
- About 3/4 up the red piece of cardboard, glue one of the blue triangles upside-down so the point is where the $3 / 4$ mark is.
- Next glue another blue triangle with its point into the middle of the 3/4 mark so the two points are touching.
- Then put the next blue triangle with its point facing up, touching the other points.
- Last of all put the last triangle with its point touching all of the other 3 points.
- To finish it off place the yellow circle sticker over the points. All 4 of them.
- You Now have a windmill.

Find the green rectangle. Glue it down near the bottom of the page. Next find the red piece. Glue it touching the top of the green piece so it is vertical and so the wide part is at the bottom. Find the four blue triangles and glue these, points in about 3/4 way up the red piece. Next stick the yellow dot in the middle of the 4 points.

## YEAR 8 - MID RANGE:

Firstly you need to put the red large piece down then you glue the green strip on the bottom of the red piece. next you put the four blue triangle's tip or top, the sharp end Just touching each other then put them between the top and the middle of the red piece and put the yellow one on the top of the sharp end. Finally glue the red piece and the blue pieces on to the paper.

Glue the green strip at the bottom of the red thing then get the blue triangles and glue them on in a $X$ shape then put the yellow circle in the middle.
get a little circle and and 4 big triangles a long rectangle and a even biger regtangle stick the big rectangle up and down ways then stick the 4 trangle like a cross $t$ in the 1st $1 / 2$ then stick the circle in the middle of the cross and last get the little rectangle and stick it at the bottem flat ways.
Red in the midl of yor page
gren on the botim of the red
make a bluow cros ner the top of the red pot the yalow in the midle of the cros.
you need 4 small triangles 1 small round dott 1 small oblong 1 big. you need glue oblong cut a bit off the square as you cut it out. First you stick the oblong standin up glue it down then stick the little oblong across the bottom of the big oblong put it up the right way then glue it down then you need to put the 4 triangles like a plus sign then glue them down. Then all you need to do is stick the little dot on the middle of the plus.
firstly you glue the red piece on the paper then you glue the green bit on the bottom of the red piece it should be touching the red piece then you put one of the blue bits on the left top of the red bit then you do the same for the right top, the top and the bottom middle. then you put the yellow sticker in the middle of the blue bits of paper. then your finished.

Put the green peice of pape on the bottom of the page then above that put the red bit above the green peice of paper. Then with the Blue peice's of paper you put them around the in a circle in the middle of the red paper don't Put the Blue bits together then in the middle put in the yellow dot over the ends of the Blue peices then you have your windmill.

1. Place the tall red piece of papper on the page. the widest bit at the bottom.
2. Place the long green piece at the bottom of the red piece. make it go across your page.
3. Place the points of the 4 blue triangles toghter slightly off the centere.
4. Place the yellow circle on top of the triangles points.
