

Da Vinci mode of learning

by Graham Grant

HE was the Renaissance genius who 'invented' the aeroplane and helicopter 500 years ahead of their time. Now education experts hope a new project inspired by the legacy of Leonardo da Vinci could send exam results soaring in Scottish schools.

The artist, scientist and engineer is the inspiration behind an initiative that helps children to learn about flight, and to work together as a team.

Trials have shown that learning about Leonardo can improve children's enthusiasm for homework – a finding organisers believe could boost exam results.

The experts behind the initiative hope it will eventually form part of the curriculum and researchers are preparing to submit evidence from the trial project to the body in charge of devising what is taught in Scottish classrooms.

More than 1,000 pupils are taking part in the 'Leonardo Effect' scheme in schools across the UK, including children in Renfrewshire. A team of pupils at Crookfur Primary in Newton Mearns have been involved in the eight-week pilot project and teachers say it has proved hugely successful.

As part of their research into flight, the pupils visited the Science Centre in Glasgow, Lochwinnoch Bird Sanctuary in Renfrewshire and a flight exhibition at James Watt College in Greenock.

After their investigations, they designed and produced their own 'fantasy flying machines', which will be put on display at the Glasgow Science Centre.

They used the basic facts learned about aviation from watching birds and studying aircraft to come up with their own idea of flying machines – just like da Vinci.

Primary five pupil Rebecca

Simpson said: 'We learned to work in a team and we had to discuss ideas with each other.'

Classmate Malika Husan said she learned that 'birds have tiny hollow bones in their wings to make it easier for them to fly.'

The knowledge gained helped the children with their own design concepts.

Their teacher, Nancy Neil, said: 'They went into the project with great enthusiasm. They learned a lot about flight and I was impressed



Set for take-off: The pupils at Crookfur Primary who designed their own flying machines

with the way they applied that knowledge to building their models. They worked well as a team, came up with some really creative ideas – and had lots of fun as well.'

The Leonardo Effect project is backed by the National Endowment for Science, Technology and the Arts (NESTA), which provided funding of £191,489.

NESTA's funding has enabled St Mary's University College in Belfast to oversee the project with more than 1,000 pupils taking part

across the UK. Deirdre Robson, head of art at St Mary's, said: 'Art and science have so much in common and teachers should capitalise on this.'

'Children should be free to experiment with colour and light without limiting their imaginations with labels of art or science.'

'Investigating, imagining, developing ideas, and creativity are of equal relevance to both disciplines. There's much written by academics on the similarities between



Leonardo: Project's role model

art and science, but there is very little evidence of it at curricular level. But it was the road to take.'

Early indications are that the project could help bolster pupils' enthusiasm for learning. 'We found reluctant learners actually wanted to do homework,' said Mrs Robson.

'The process of investigation encourages them to develop their own ideas. The result is the development of creative, independent and enthusiastic learners.'