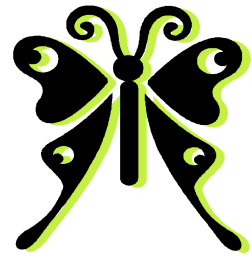


# ButterFly Wings



Students Learn about CAD CAM by constructing a laser cut model butterfly. They have to identify the various parts of the butterfly by shape and size and follow step by step assembly instructions. This takes great Skill and patience as the models are both intricate delicate. The model is then painted and put aside to dry. Students then have to design the Artwork for the wings of their butterfly. Wing designs are scanned into a computer and students learn about image manipulation and modification using a 2D design package.

Designs are Copied, Mirrored, Scaled Down and Arranged to tessellate on to one special sheet of paper. A T-Shirt press is then used to transfer the image on to the model butterfly wings.

Location: STAR room.

Group size: 4-16 students.

Recommended Level: KS2 or KS3

Cost: £3 per pupil (min charge 10 Students)

Consumables: Laser Image Transfer Paper, Display Card, ink, paint

Tools and Equipment: Scanner, T-shirt Press, Paint & Brushes, Scanner, Computer

Staffing: Mr. Emanuel & Mr. Woodward.

Time needed: 5 hours.

Extension Tasks: Students change the shape and structure of the wings.

Artist Study (e.g. Damien Hurst).

Butterfly Facts.

CAD CAM Focus.

Stoke-on-Trent  
citylearningcentres

Forward thinking technologies



**Curriculum Areas:** Engineering  
Resistant Materials  
Compliant Materials (Inc Textiles Processes with T-Shirt Press)  
Art

**Software used:** Scan Software  
2D Design  
Pro Desktop 8 (Extension task)

**Subject Specific words**

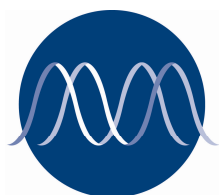
**Tools and Equipment:** T-shirt Press  
Laser Image Transfer Paper  
Paint & Brushes  
Scanner  
Computer

**Other:** CAD  
CAM  
Assembly  
Component  
Mirror  
Rotate  
Scale  
Copy, Paste  
Design  
Inspiration  
Model  
2D, 3D

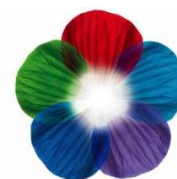
**Health and Safety:** Sharp objects  
Glue  
Hot T-shirt Press  
Paint

**Functional Skills:** Hand Eye Co-ordination  
Using appropriate tools and equipment  
Art and Design Skills  
Patience  
Shape and size  
Identification and Classification  
Safe use of tools and equipment  
Working on a Focused Practical task  
Working to a deadline and completed product  
Health and Safety

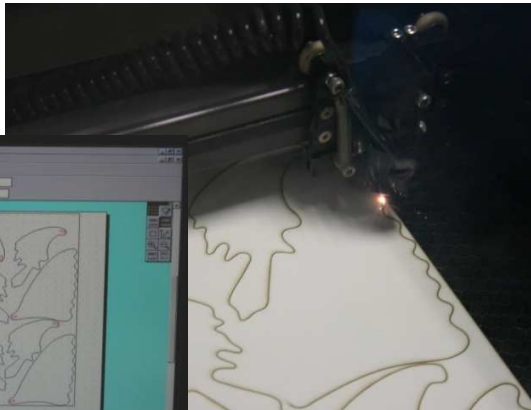
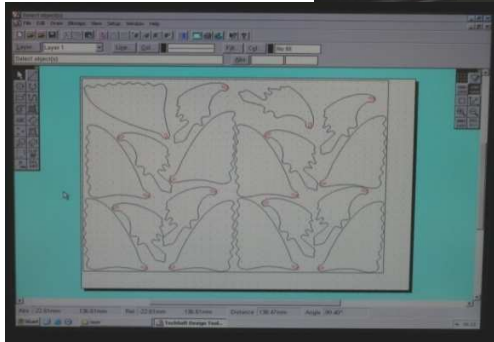
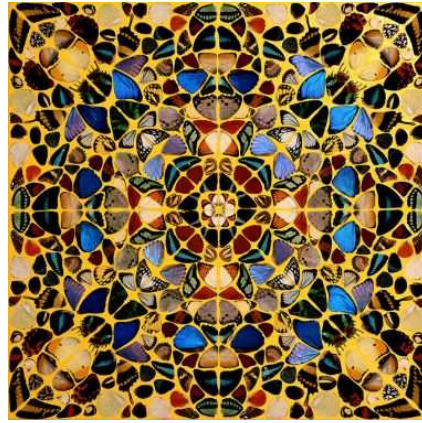
**Every Child Matters:** Enjoy and Achieve



Engineering



Specialist Schools Trust  
EXCELLENCE AND DIVERSITY



Name: \_\_\_\_\_ School: \_\_\_\_\_ Class: \_\_\_\_\_

STAR Butterfly wings Graphic design sheet



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Name: \_\_\_\_\_ School: \_\_\_\_\_ Class: \_\_\_\_\_

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