

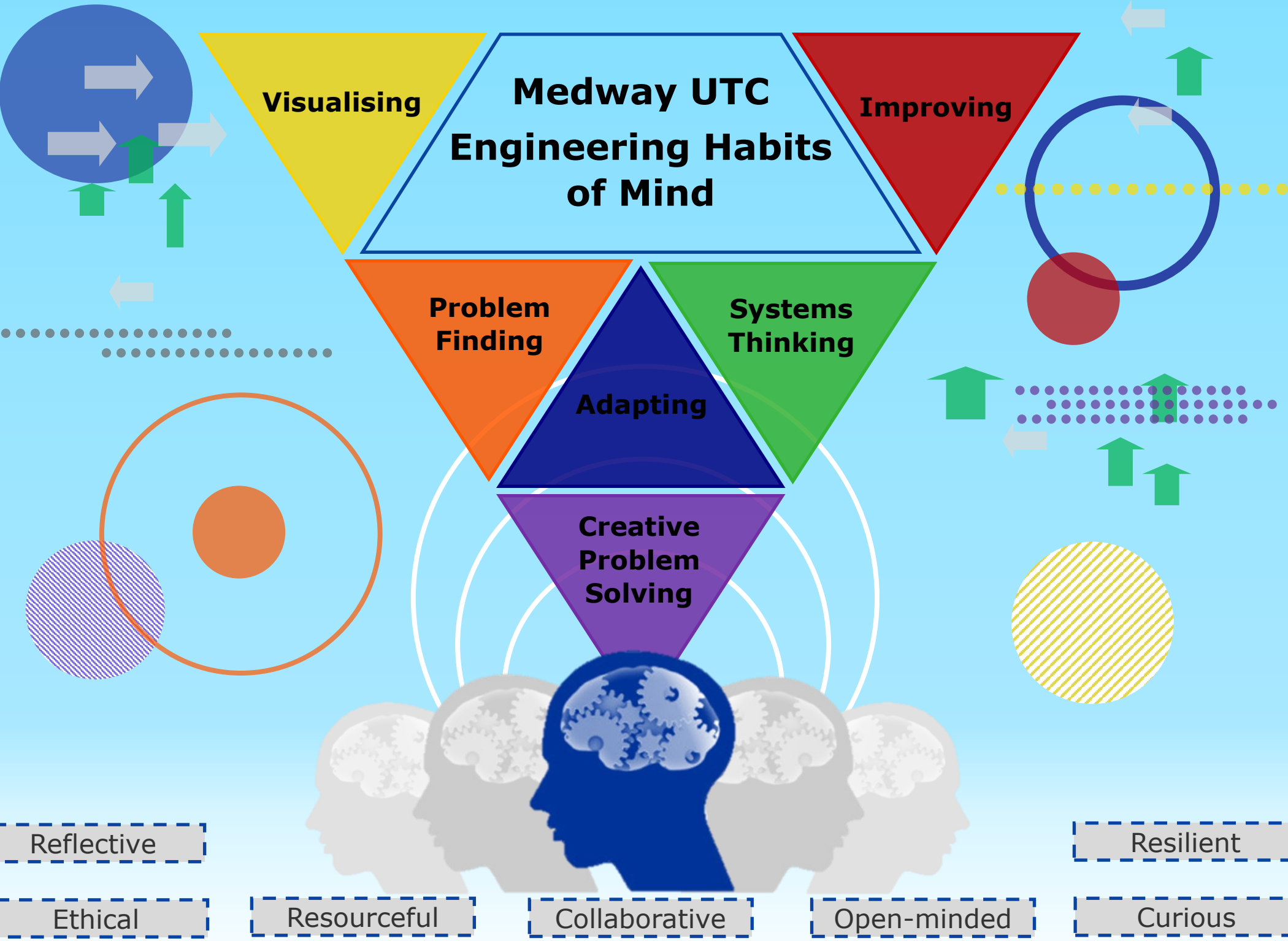


Thinking like an Engineer



This resource has been provided courtesy of Medway UTC, Chatham, Kent and was prepared while the school was involved in the 'Thinking like an Engineer' project 2014-2016. Please acknowledge the school if you use this material.

Website: <http://www.medwayutc.co.uk/>



I M P R O V E M E N T

**relentlessly trying to make
things better by experimenting**

designing

sketching

conjecturing

thought-experimenting

prototyping

A D A P T I N G

testing

analysing

reflecting

rethinking

**changing both physically
and mentally**

**G
Z
H
S
H
A
F
C
S
H
V**

**being able to move from
abstract to concrete**

manipulating materials

**mental rehearsal of physical
space and of practical design
solutions**

S **T**
Y **H**
S **I**
T **N**
E **K**
M **I**
S **N**
G

**seeing whole systems and
parts and how they connect**

pattern-sniffing

recognising interdependencies

synthesising

**P
R
O
B
L
E
M** **F
I
N
D
I
N
G**

clarifying needs

checking existing solutions

investigating contexts

verifying

**C
R
E
A
T
I
V
E**
**P
R
O
B
L
E
M**
**S
O
L
V
I
N
G**

**applying techniques from
different traditions**

**generating ideas and
solutions with others**

**generous but rigorous
critiquing**

**seeing engineering as a
'team sport'**