



The **Association**  
for **Science Education**

*Promoting Excellence in Science Teaching and Learning*

# Lab Design Gallery:

## A portfolio of designs of school science laboratories

Compiled by **Andy Piggott**

Science education consultant, *retired*

*Formerly:*

Lead tutor: Lab design course, National Science Learning Centre

*and* Project Officer: Laboratory Design for Teaching and Learning

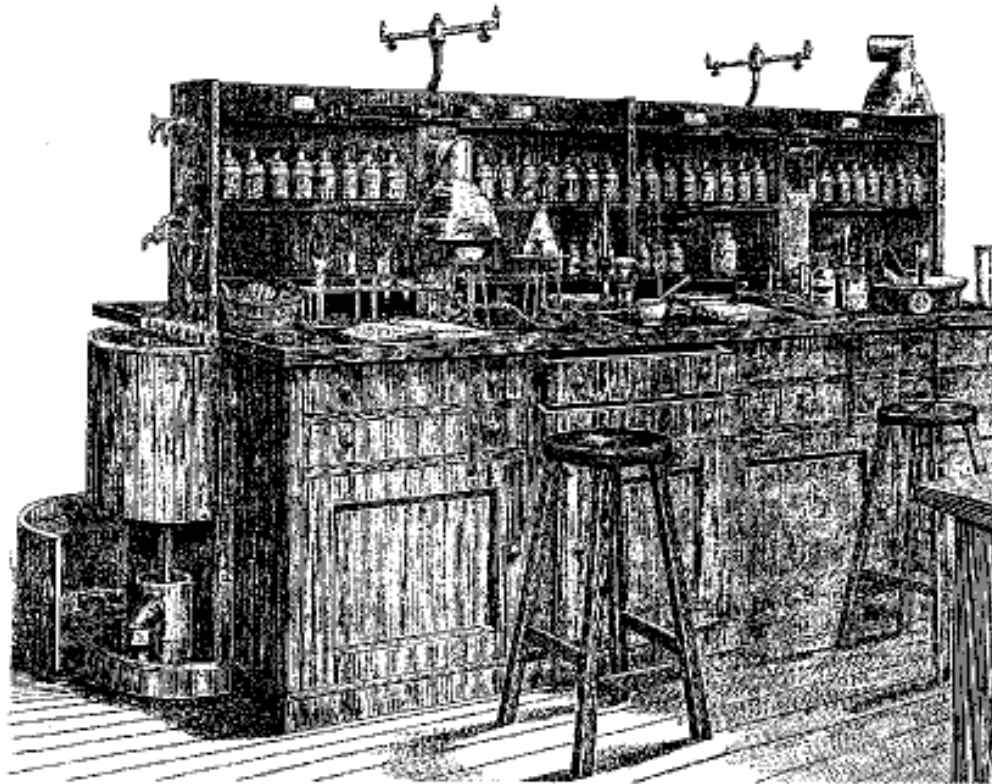
tel: +44 (0)1753-885222

e-mail: [andy.piggott@btinternet.com](mailto:andy.piggott@btinternet.com)

***All the designs and ideas in this portfolio were contributed by firms and organisations, with the intent that a wide range of designs for school science laboratories should be made available to all those who are working to provide good quality laboratories for children to learn in.***

*Where possible, designs have been attributed to the appropriate firm or organisation.*

# The way they used to be ?



from CLEAPSS Guide L14, 2000

# Circles – double Lab



National SLC, York

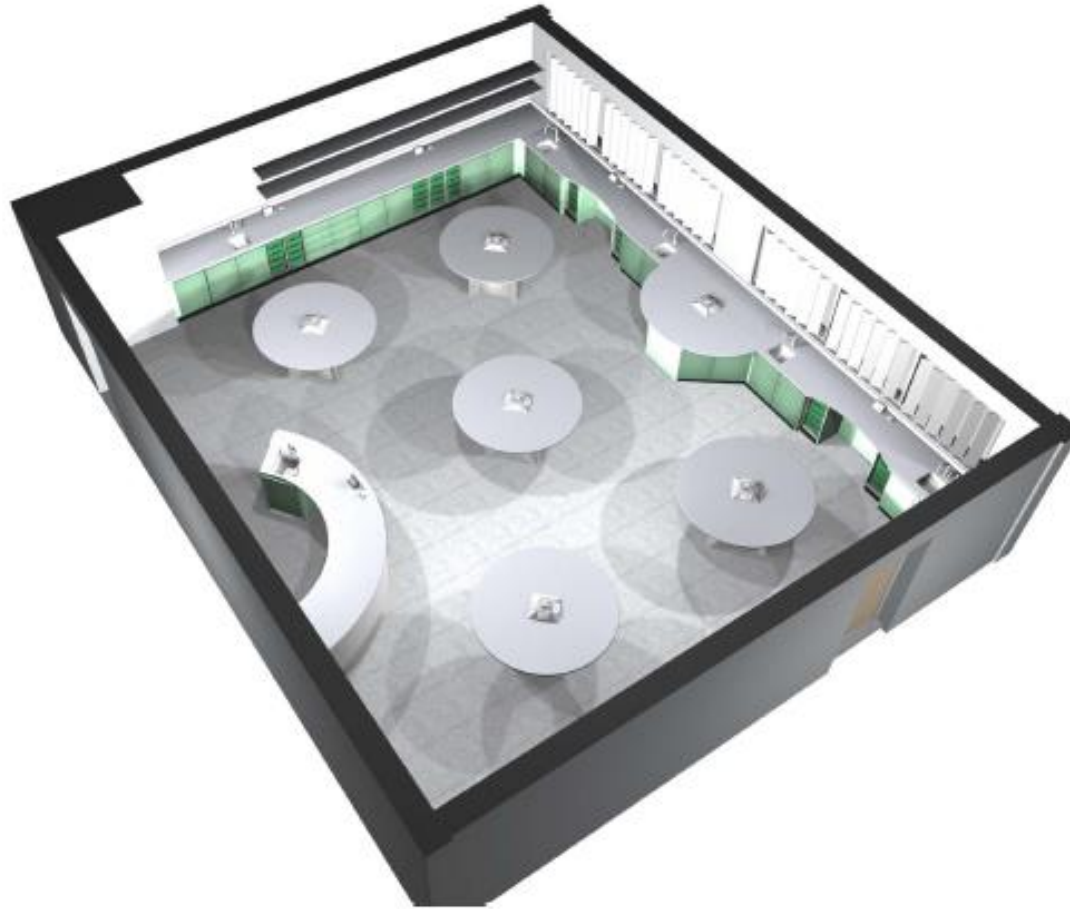


# Circles - linked



S+B

# Circles and perimeter



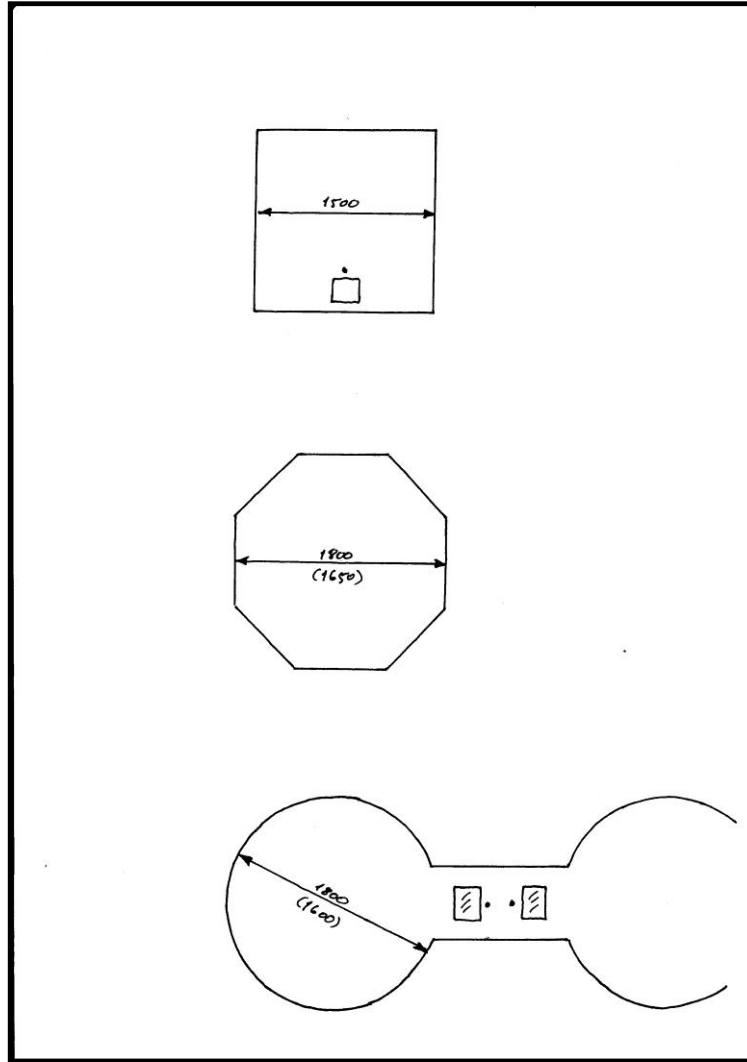
Frith Architects

# Circle - adjustable



British Thornton

# Square – Circle - Octagon



# Octagons – linked 1



LDTL



# Octagons – linked 2



LDTL

# Octagons - linked



ESA

# Octagons – tall services



ESA

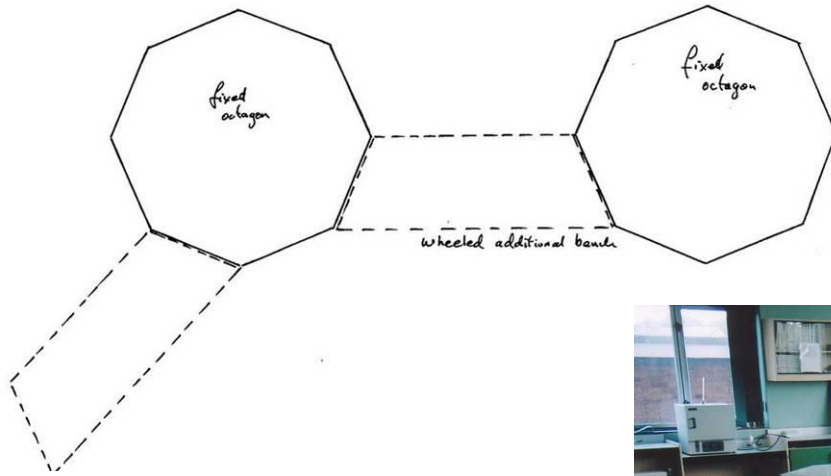
# Octagons – separate practical area



Chemistry - Anon



# Octagon + Trapezium



Staffordshire *with* S+B

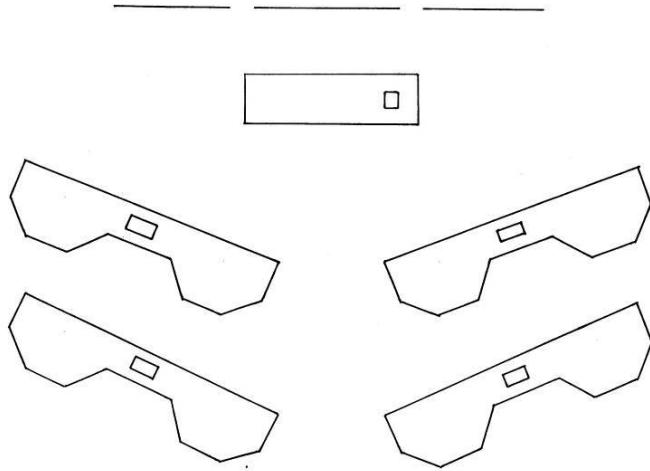


# Octagons – Special School



LDTL

# Half Octagons



Anon

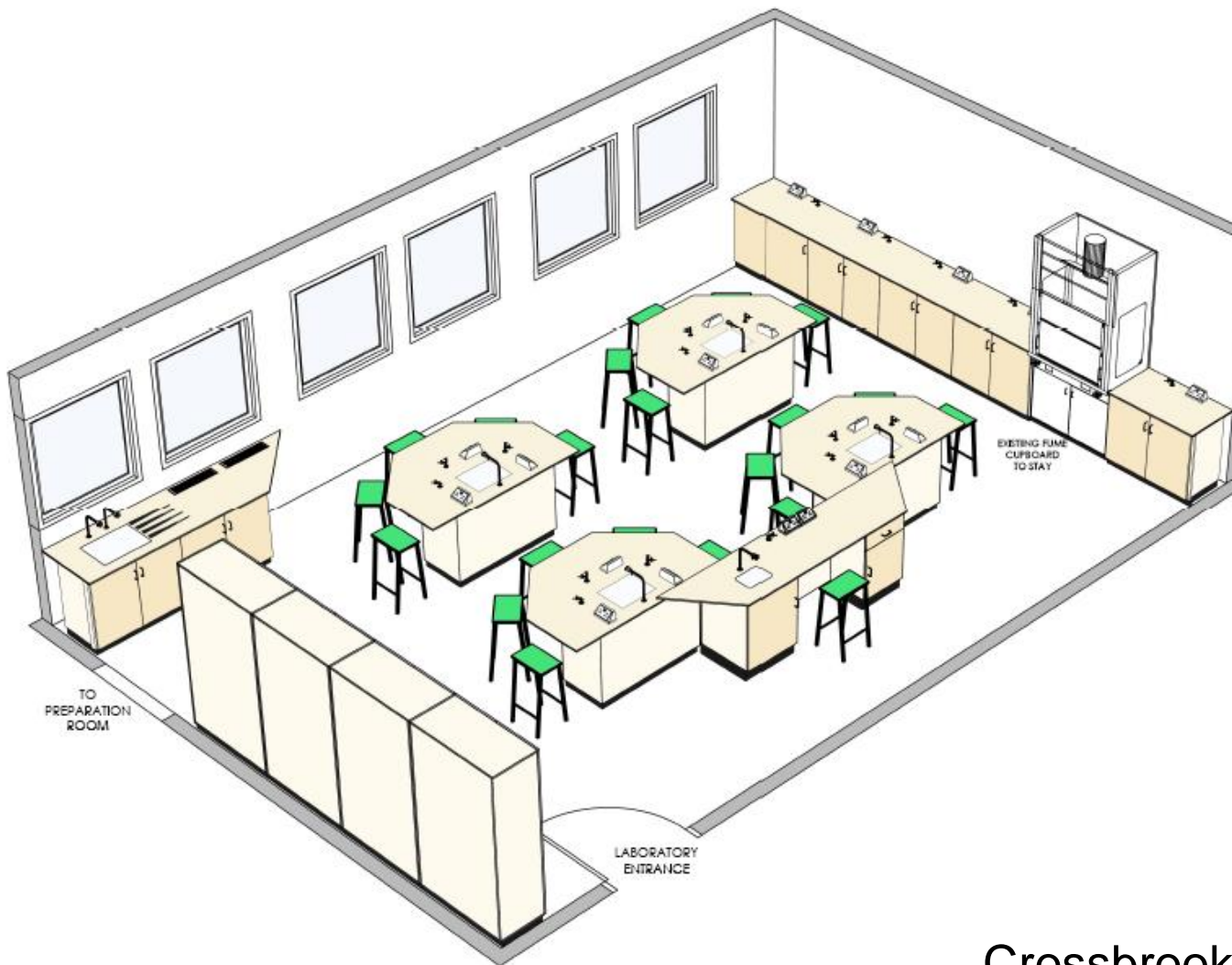


# Octagons – in line



Anon

# Half Octagons



Crossbrooks



# Peninsula - Octagon



Key Stage



# Peninsulas 1



LDTL

# Peninsulas 2



LDTL

# Thin peninsula



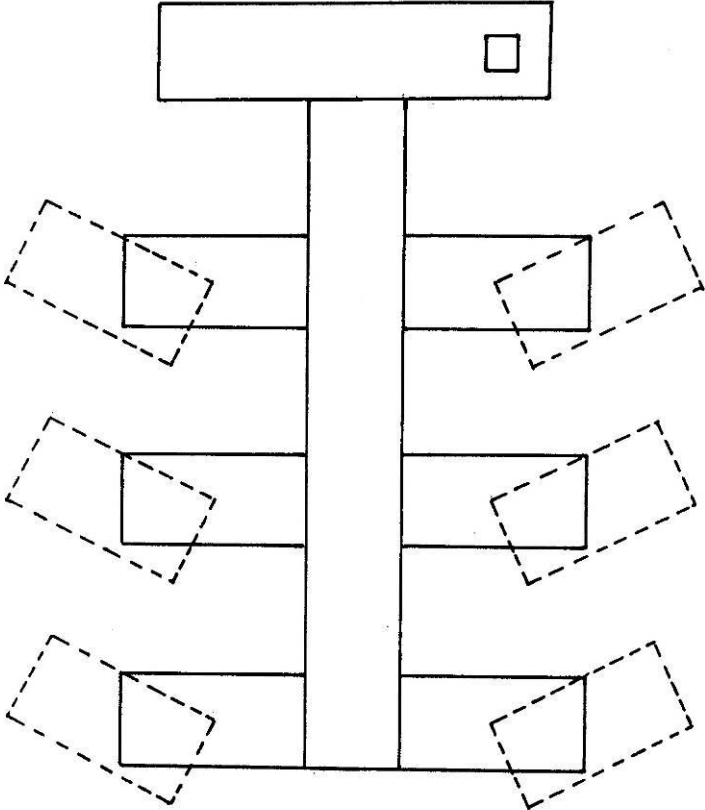
Anon

# Perimeter - ICT



ESA

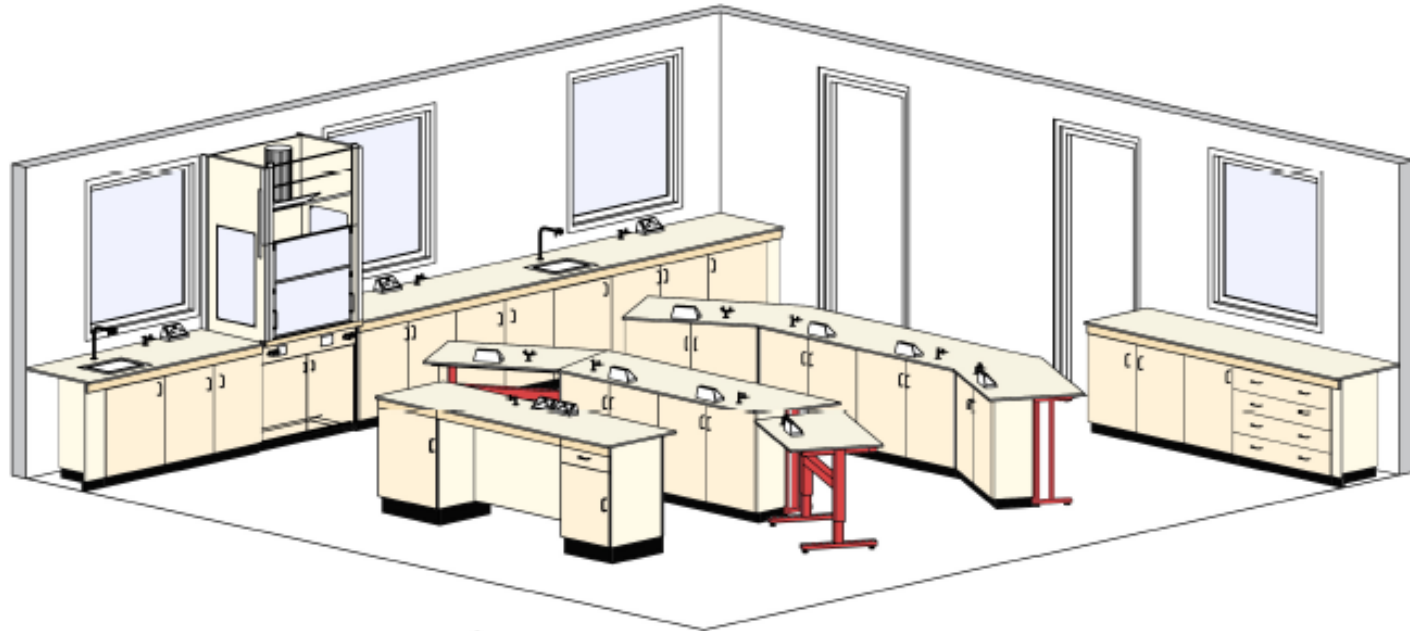
# Central spine



Anon



# Traditional - updated



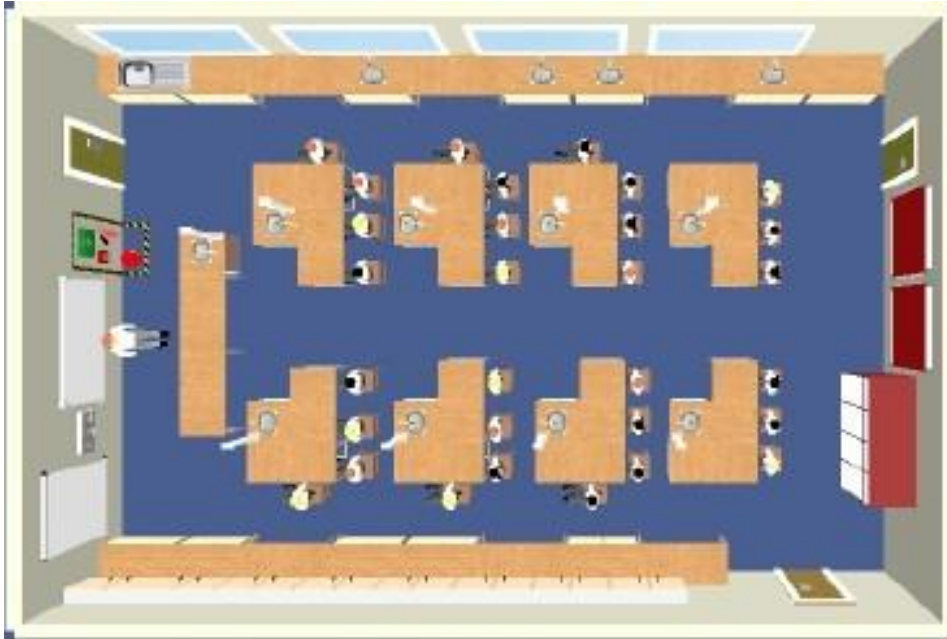
Crossbrooks

# Rectangles – fixed bollards



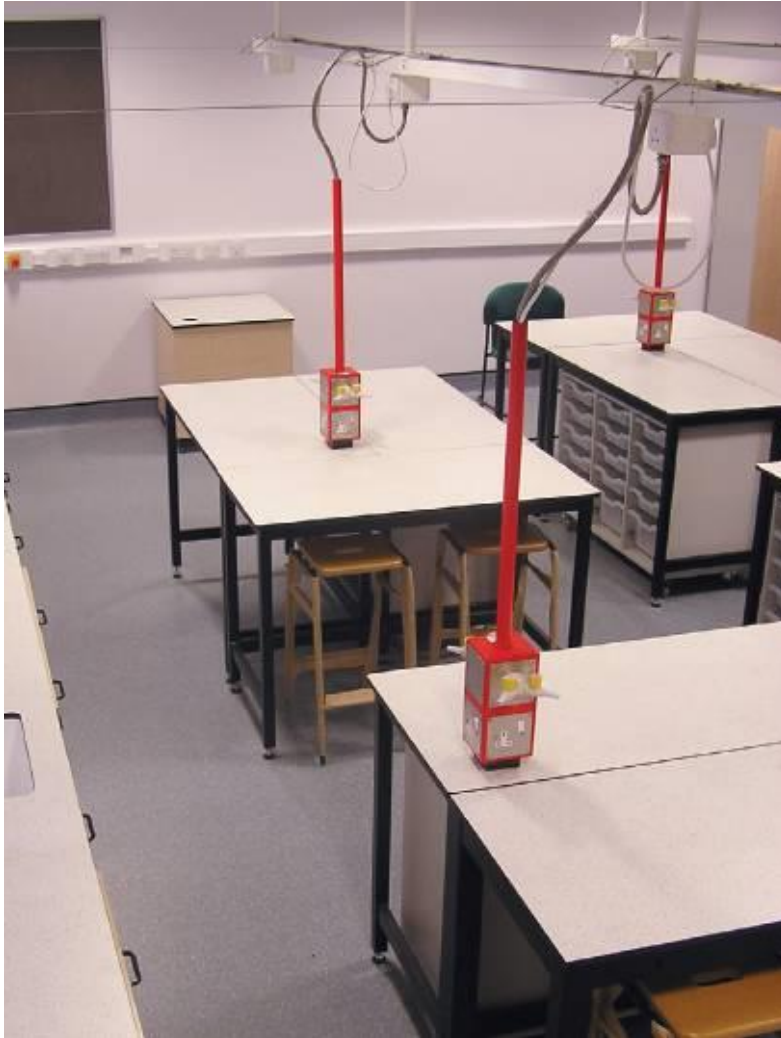
LDTL

# Rectangles – overhead services



LDTL + Anon

# Rectangles – overhead services



Grant Westfield

# Overhead services



Tottenham UTC



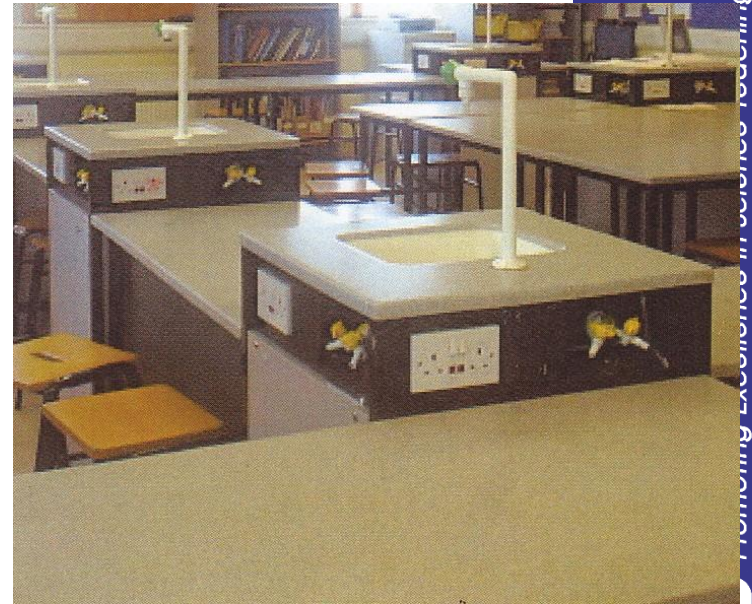
Note – *flexible pipes and cables not shown*



# Rectangles – tall bollards



Bluecoat School



# Home made – slide under benches

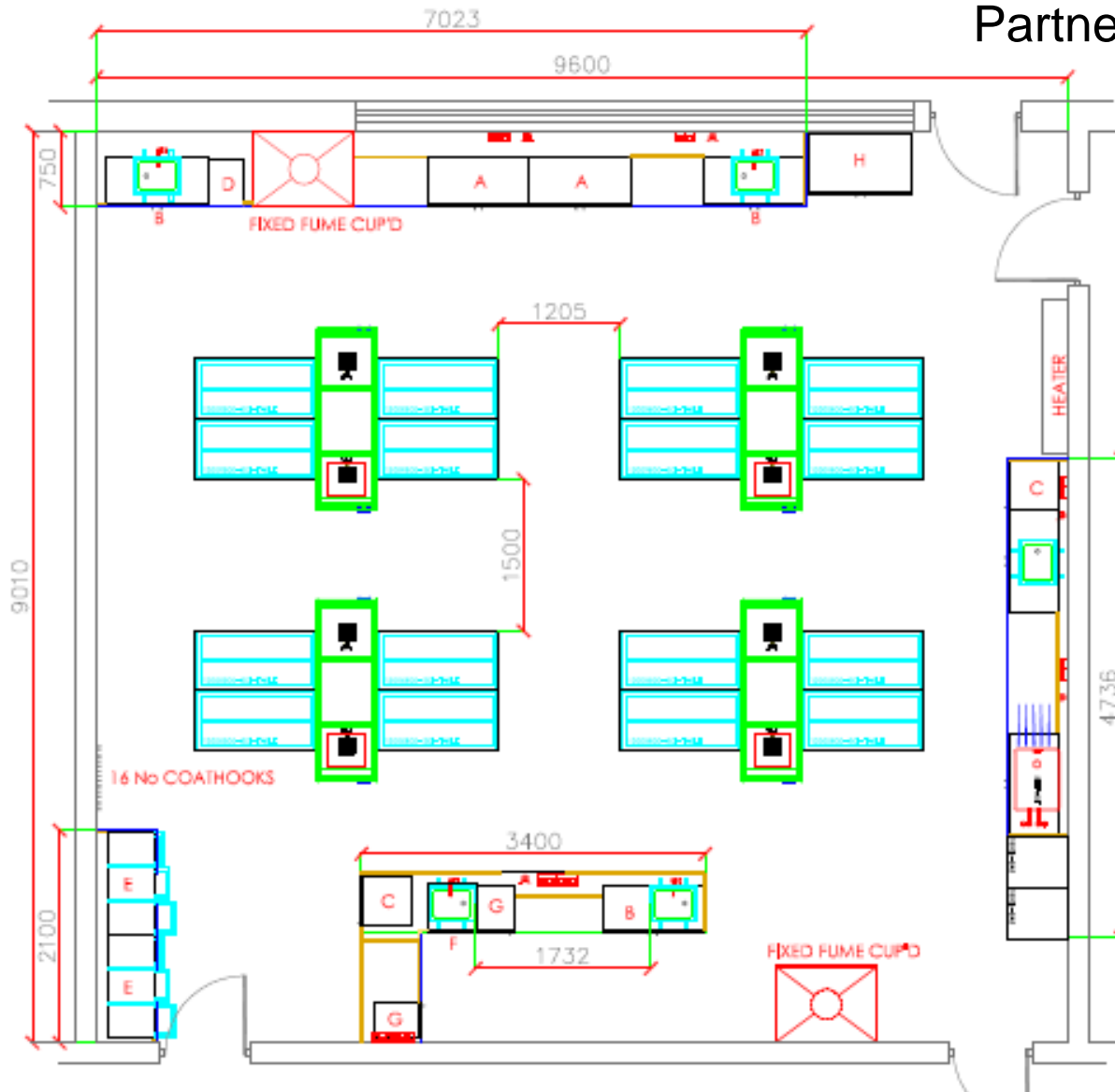


Ratton



# Triple length bollards

Drawing by A-Z  
Partnerships Ltd



Staffordshire

# Superlab – Island benches



Hayesfield - Cleeves

# Swirl



Yorks + Humberside SLC



# Wavy



Tottenham UTC

# Wavy – two heights



Key Stage - Discovery

# Kidney



Crossbrooks



# Movable bollards - curvy



West Midlands SLC



# Movable bollards - curvy



ESA Arial



# Jigsaw



Langley Academy

# Movable bollards / adjustable benches



London SLC

# Teardrops



S+B Mercury



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# Teardrops - Circle



S+B Mercury + Saturn



# Colour and Illumination



Saturn

Saturn +  
Mercury



S + B



# Teardrops – tutorial + dem room



LDTL



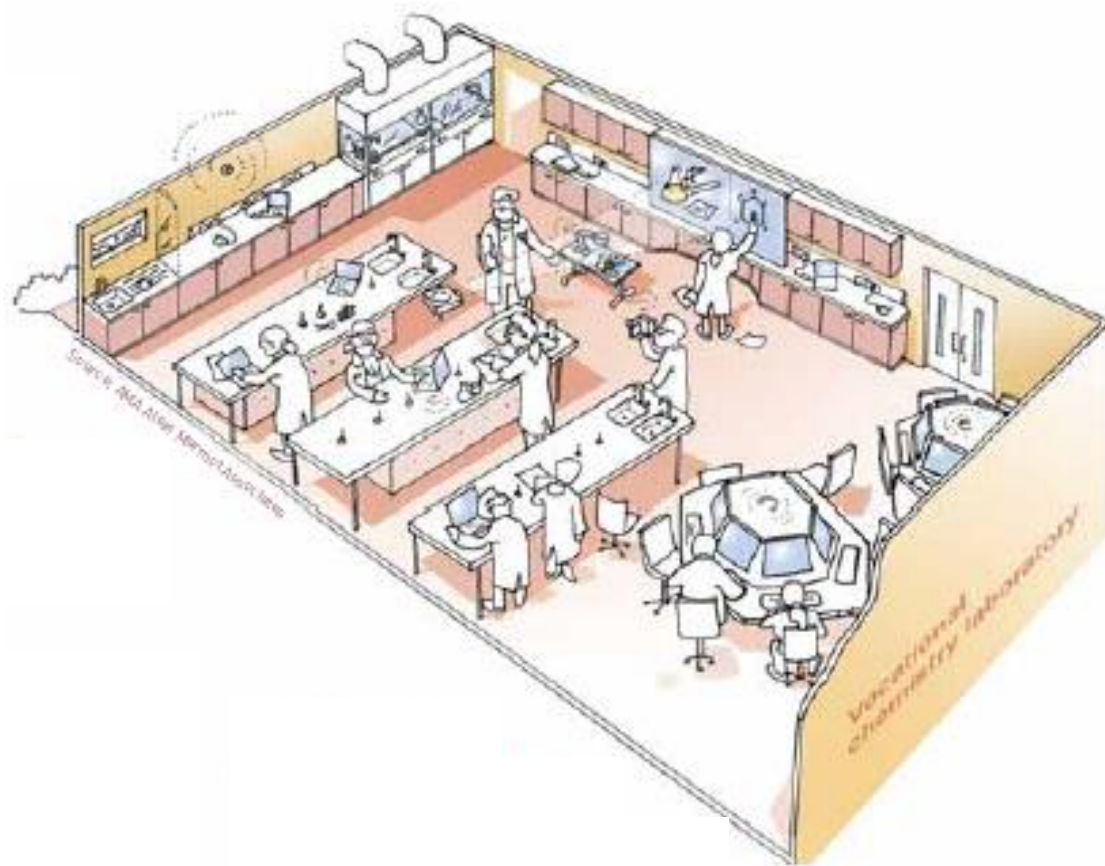
# Centre of circle



Bideford College

Project Faraday

# Vocational Chemistry



JISC



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# Secure

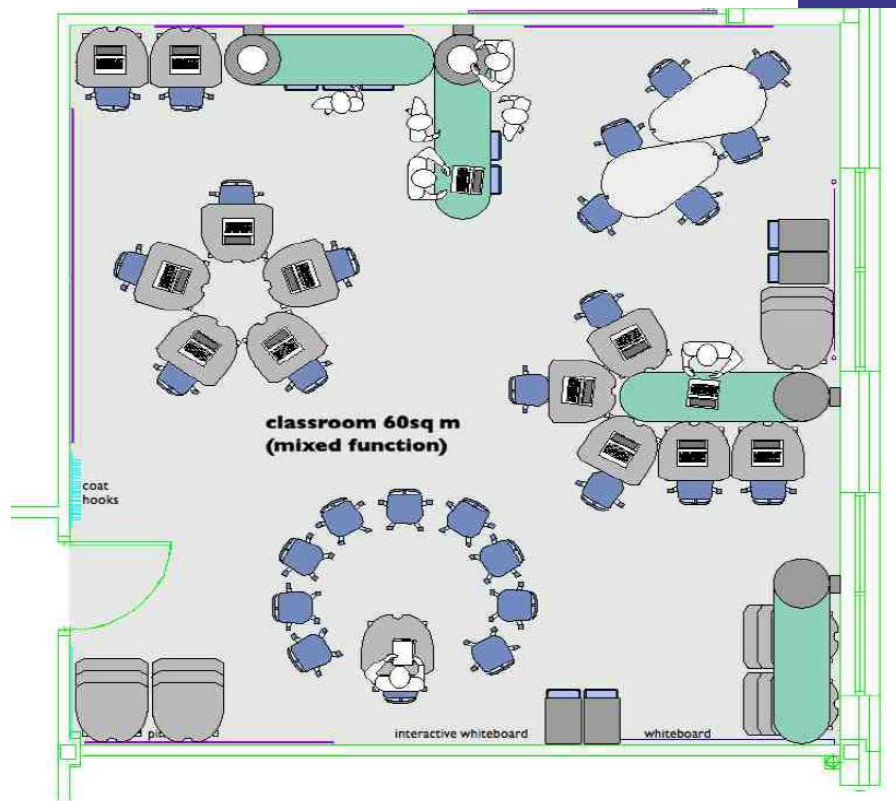


Key Stage - Secure

# Rotatable service bollard



Reaction furniture



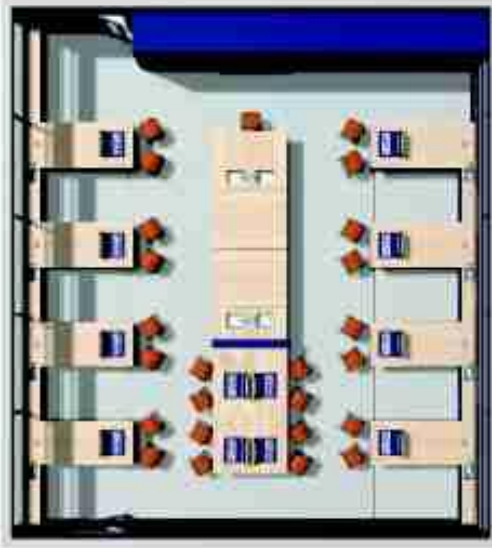
British Thornton

# Lab 21 – Lab 1



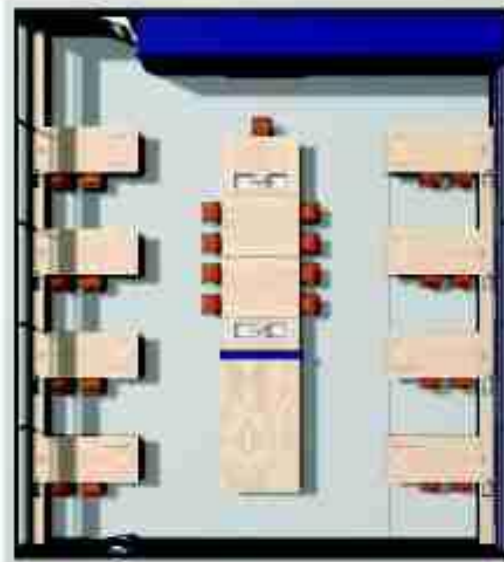
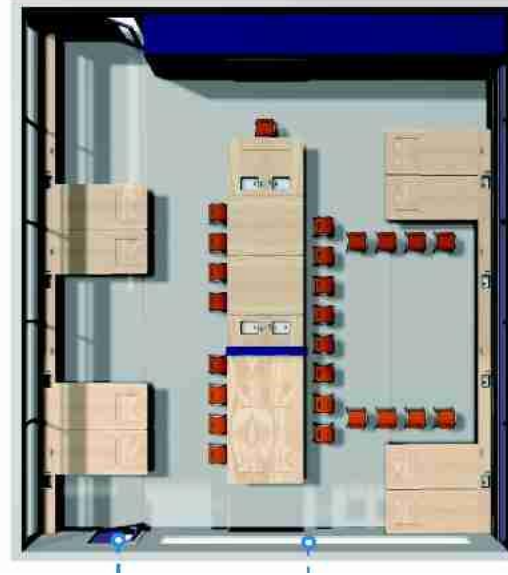
DENI

# Lab 21 – Lab 1



*ICT*

*role play*



*practical*

DENI



# Lab 21 – Lab 2

Teaching wall

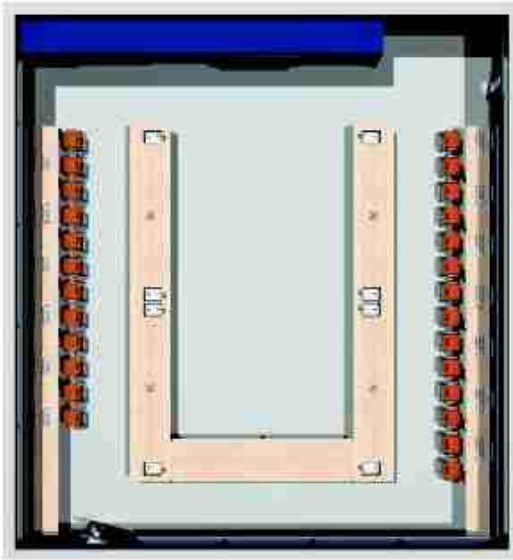


Large open area

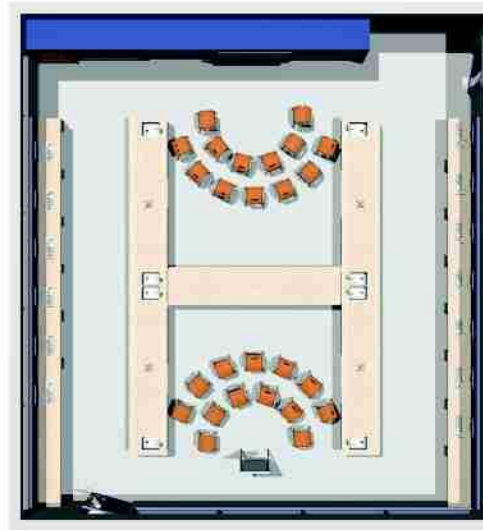
DENI



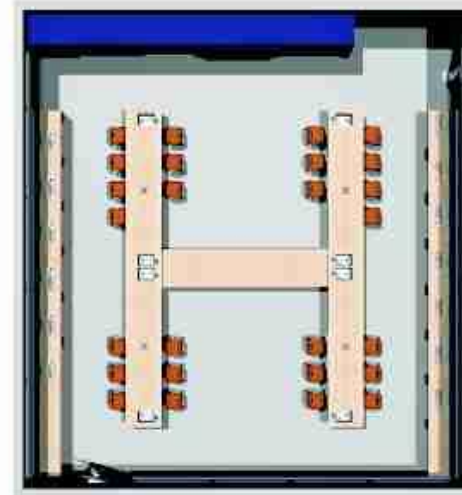
# Lab 21 – Lab 2



ICT



*discussion 1*



*discussion 2*

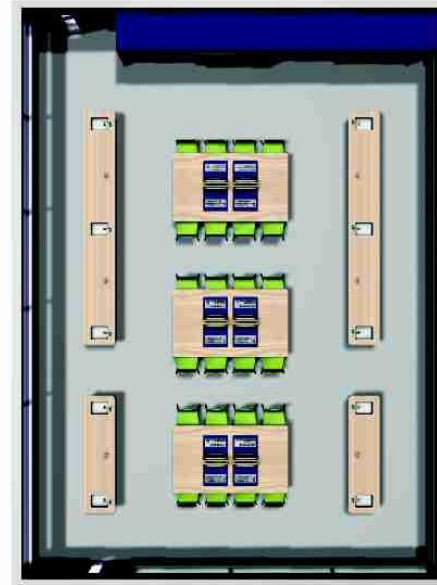
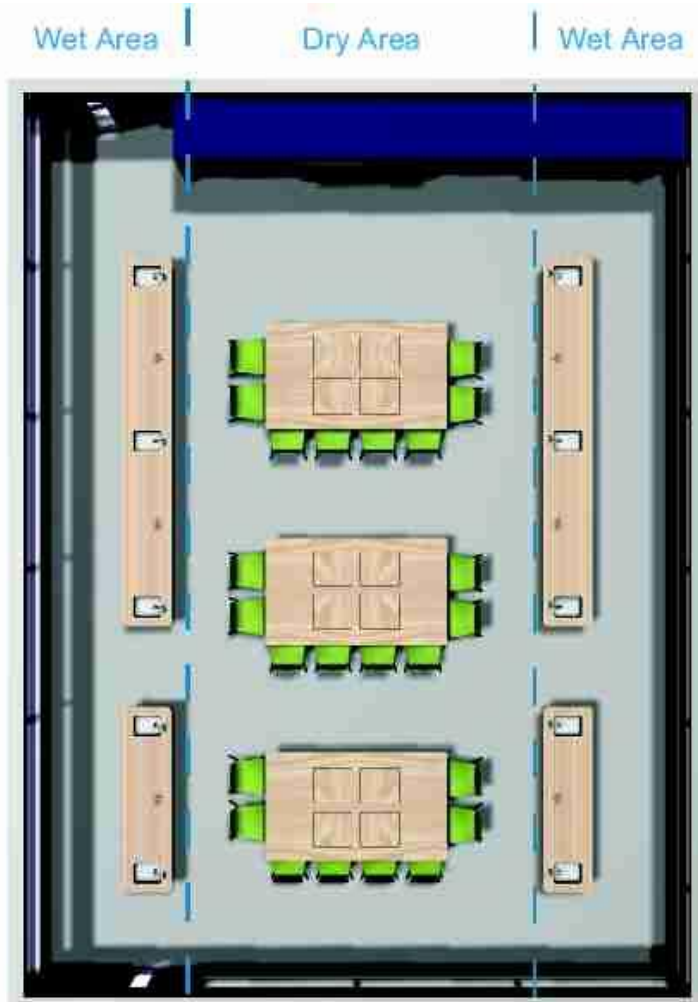
DENI

# Lab 21 – Lab 3



DENI

# Lab 21 – Lab 3

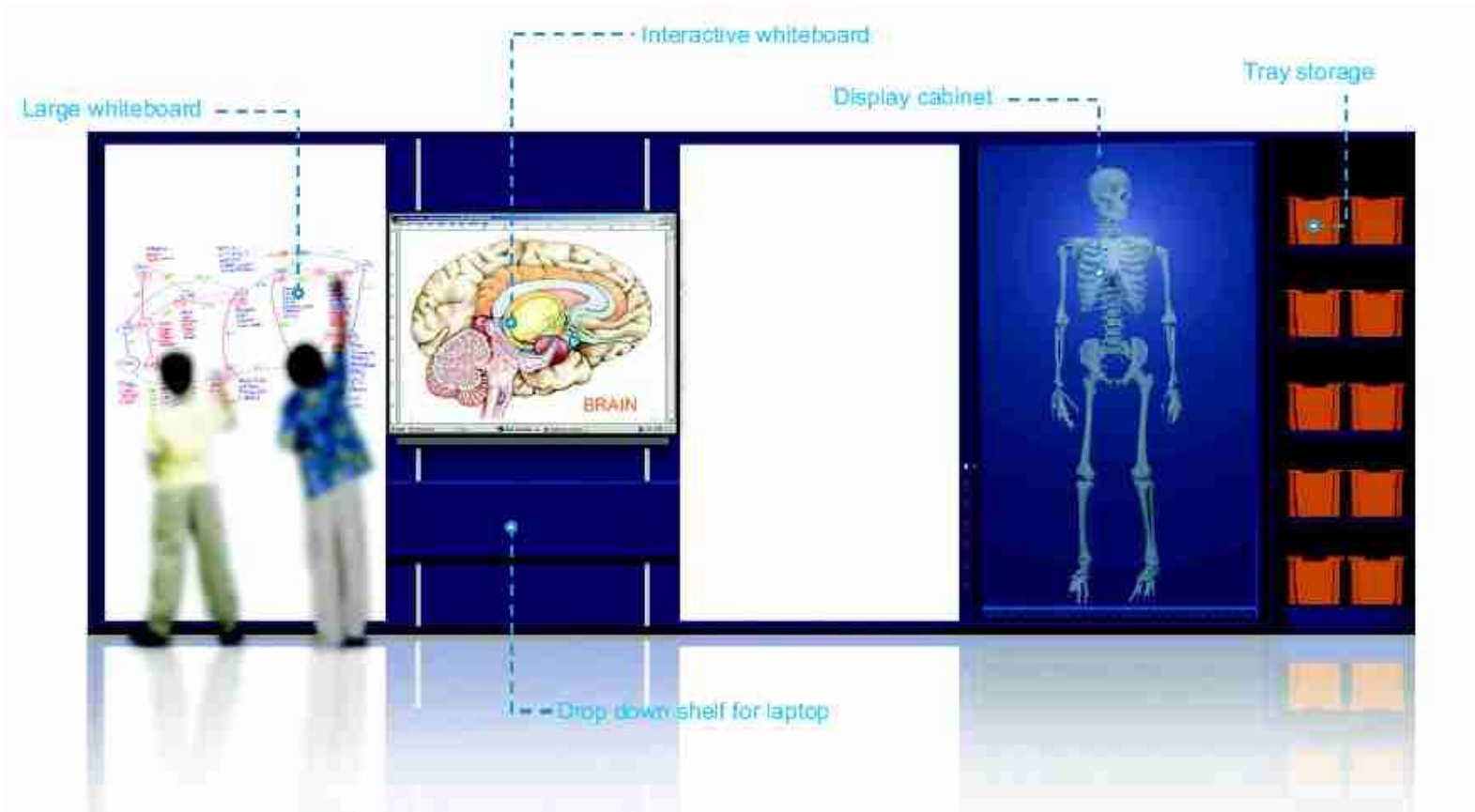


*Wet & Dry*

*ICT*

DENI

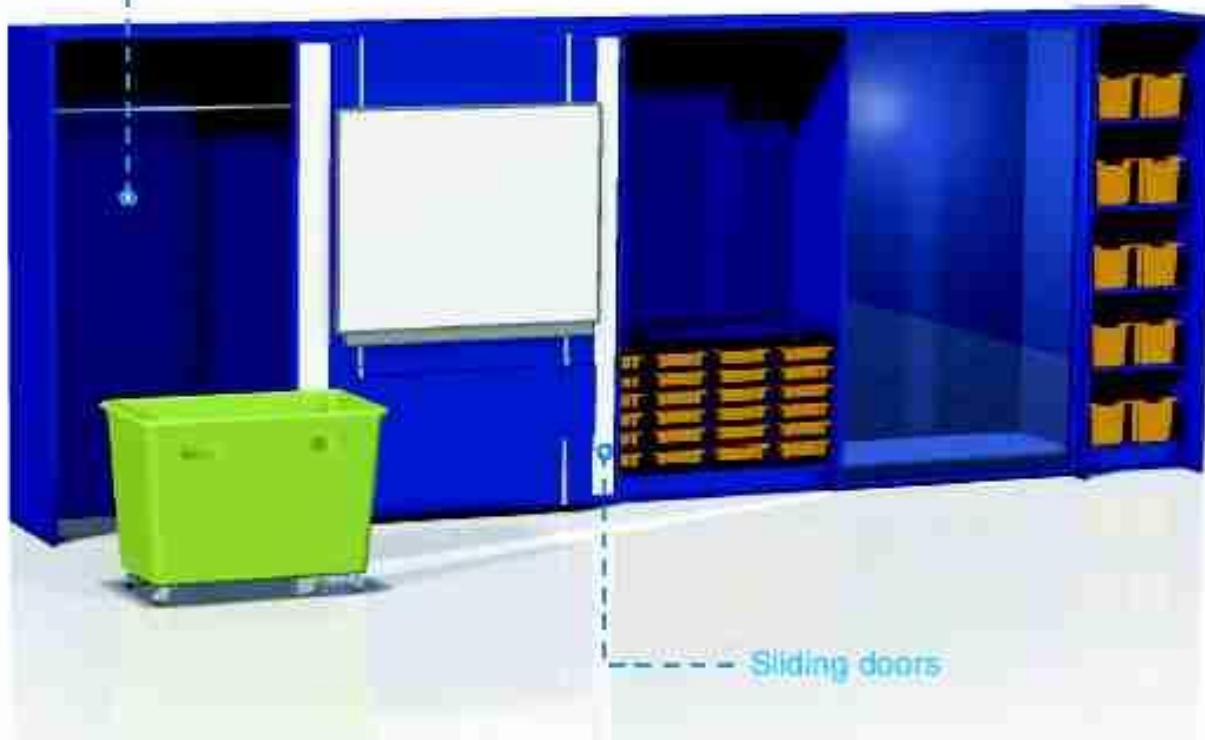
# Lab 21 – Teaching Wall



DENI

# Lab 21 – Teaching Wall

Additional storage



DENI



# Teaching wall – with short-throw projector



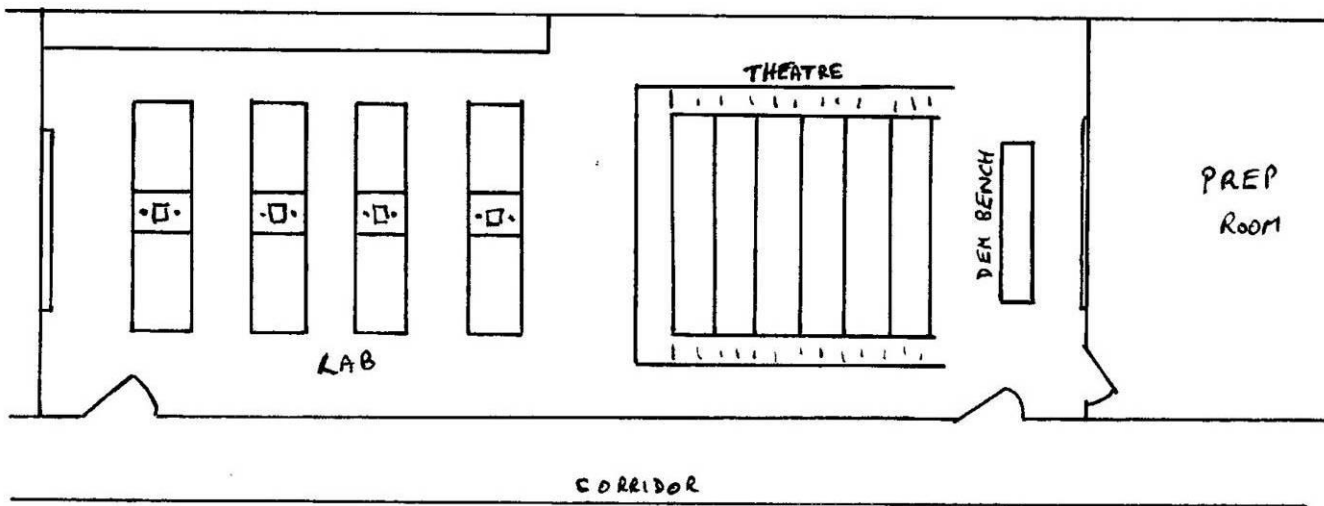
S + B

# Secure



SLC North East with S+B

# Lecture - practical



1970s Grammar School

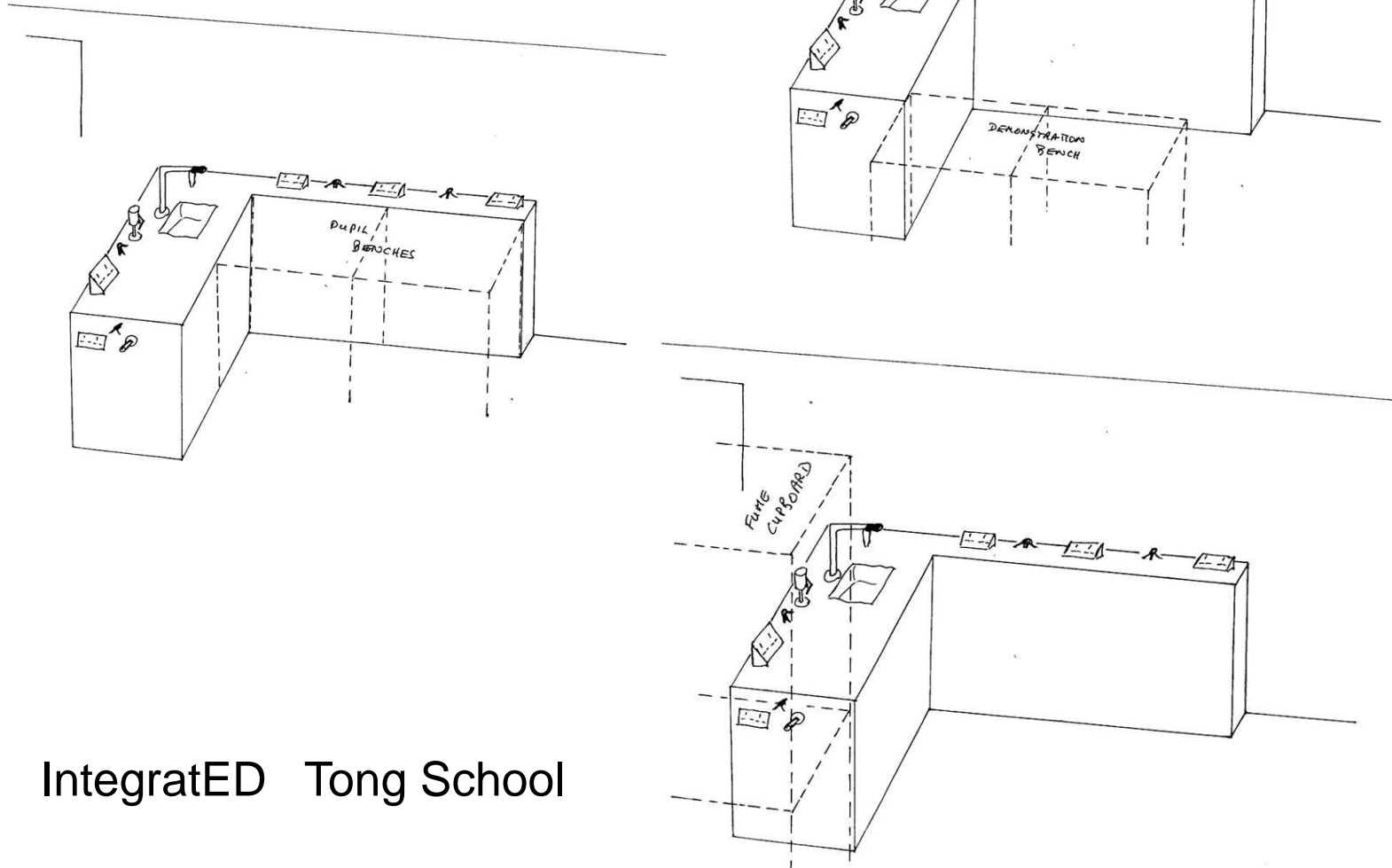
# Lecture - practical



Network

# Flexible

Pupils / Demonstration /  
Fume Cupboard



IntegratED Tong School



# Teacher's bollard/desk



Key Stage

# Demonstration bench



SLC North West

# Teacher's bench



British Thornton

# Special bench - adjustable



British Thornton

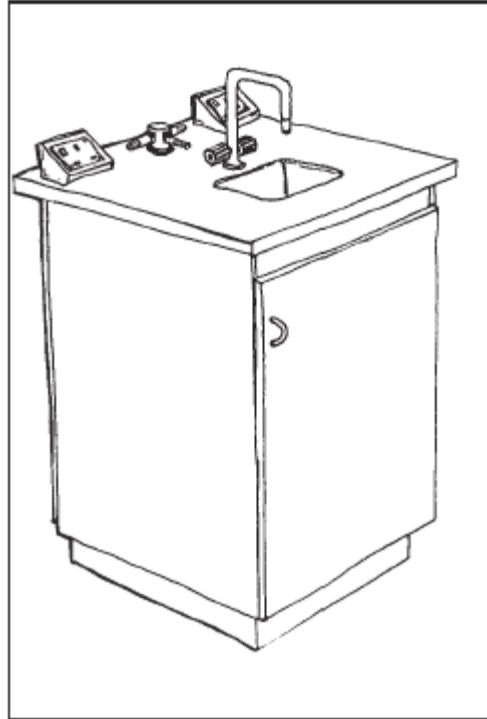


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# Service bollard

– same height as benches



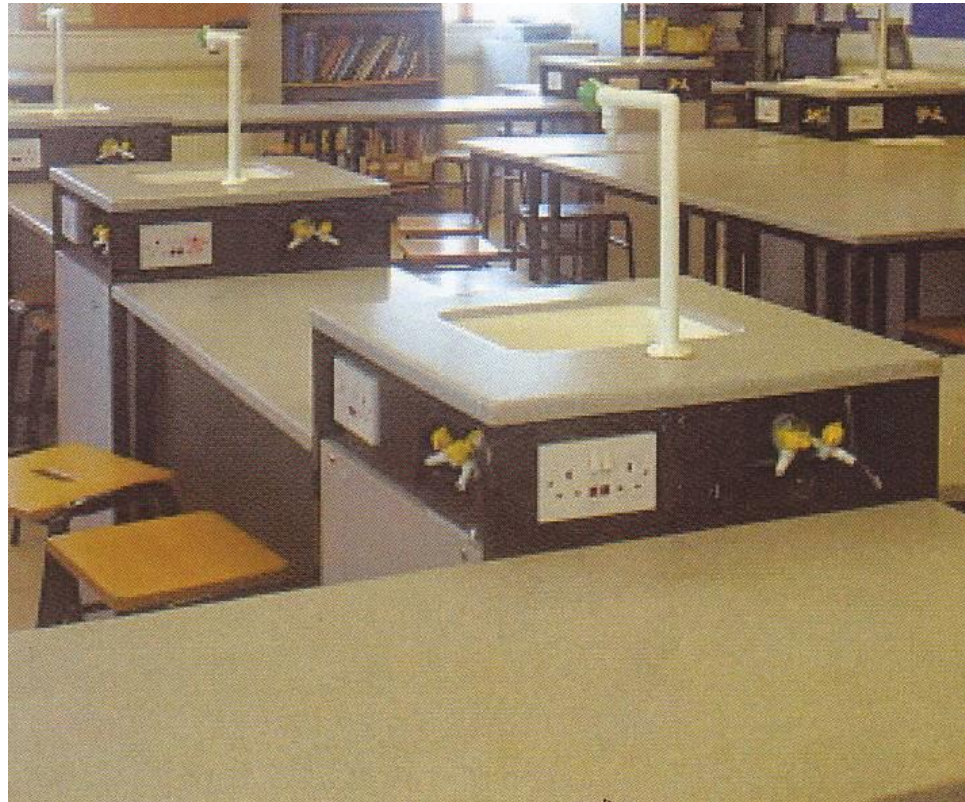
DfES BB80, 2004

*(now DfE)*



# Service bollard

- taller than benches



Bluecoat School

# Service bollards fixing mobile benches



S+B Intercon

# Service Bollard on wheels – elec only



Kings School, Peterborough (*Project Faraday*)



# Service bollard with plinth



Anon

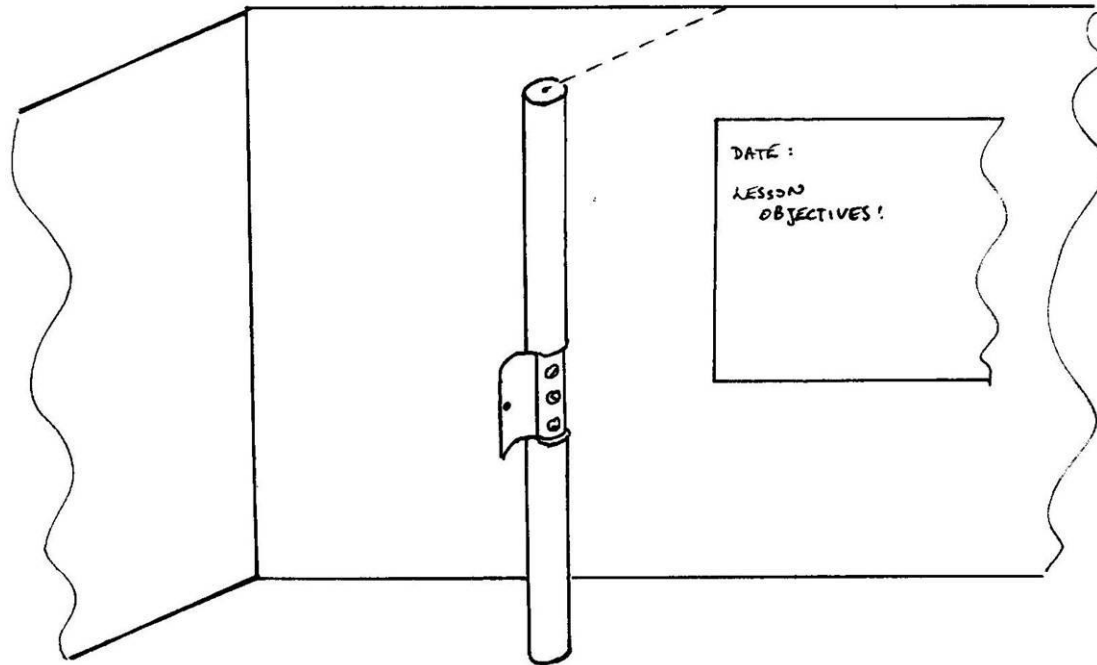
# Thin perimeter services and display



Key Stage – concept design

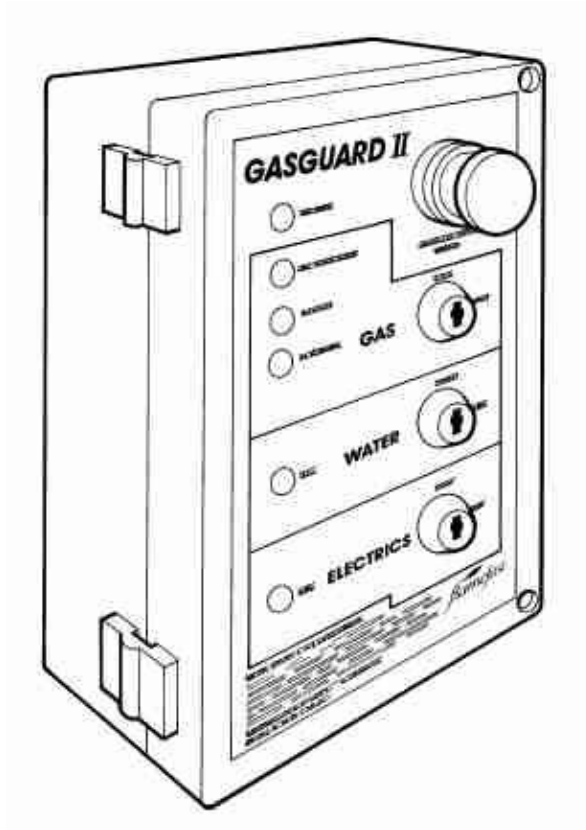


# Control of all Services – in one place



Mossbourne Academy

# Control of Services – gas / elec / water – key version



Flamefast

# Control of Services – gas / elec / water – software version



Trio Lab Start

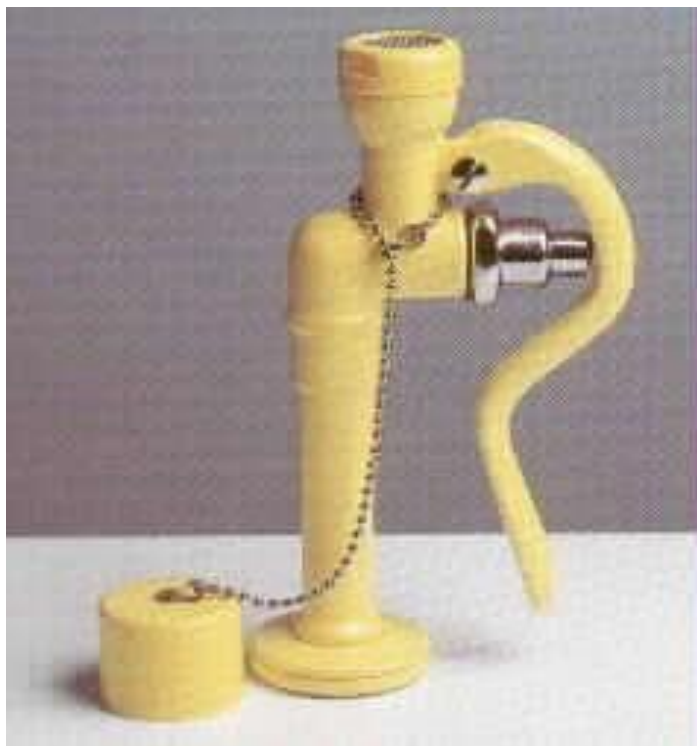
via 'Heat and Combustion Supplies'

# Health & Safety area



LDTL

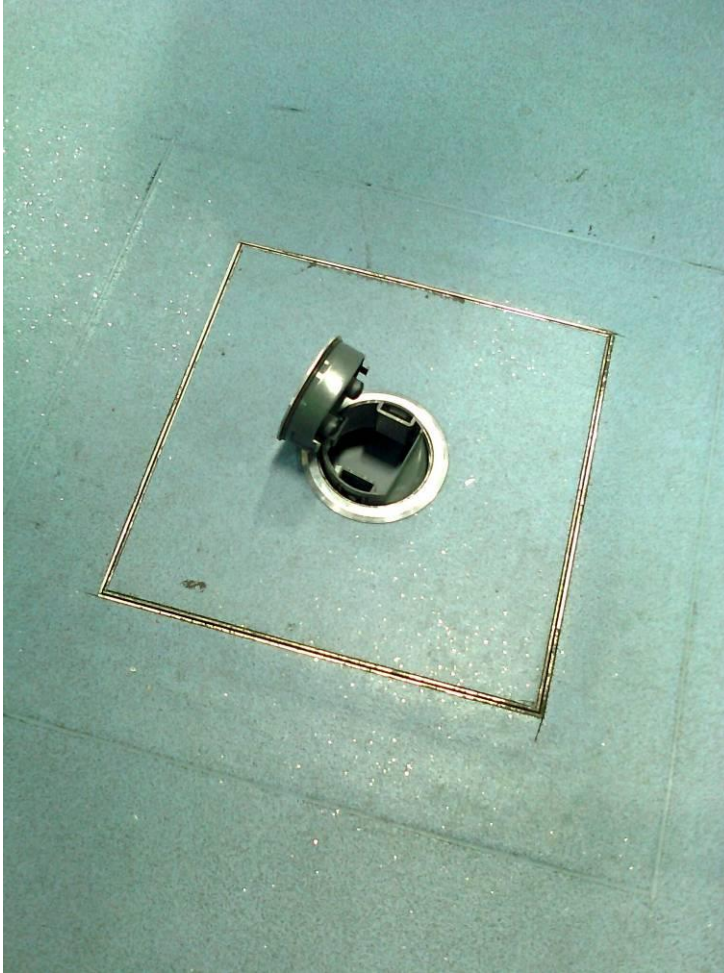
# Emergency eyewash



Arboles



# New style electric floor socket



Kings School, Peterborough  
(*Project Faraday*)

# High gas taps – to keep bench clear



Kings School, Peterborough (*Project Faraday*)

# Gallery – benches go under



As lecture theatre



Practical work

King Charles School



# Decoration as Science



DNA in floor



Screens give alternative spaces –  
code for A,G,C,T

King Charles School

# Sedum roof



King Charles School





# Periodic table + chairs!

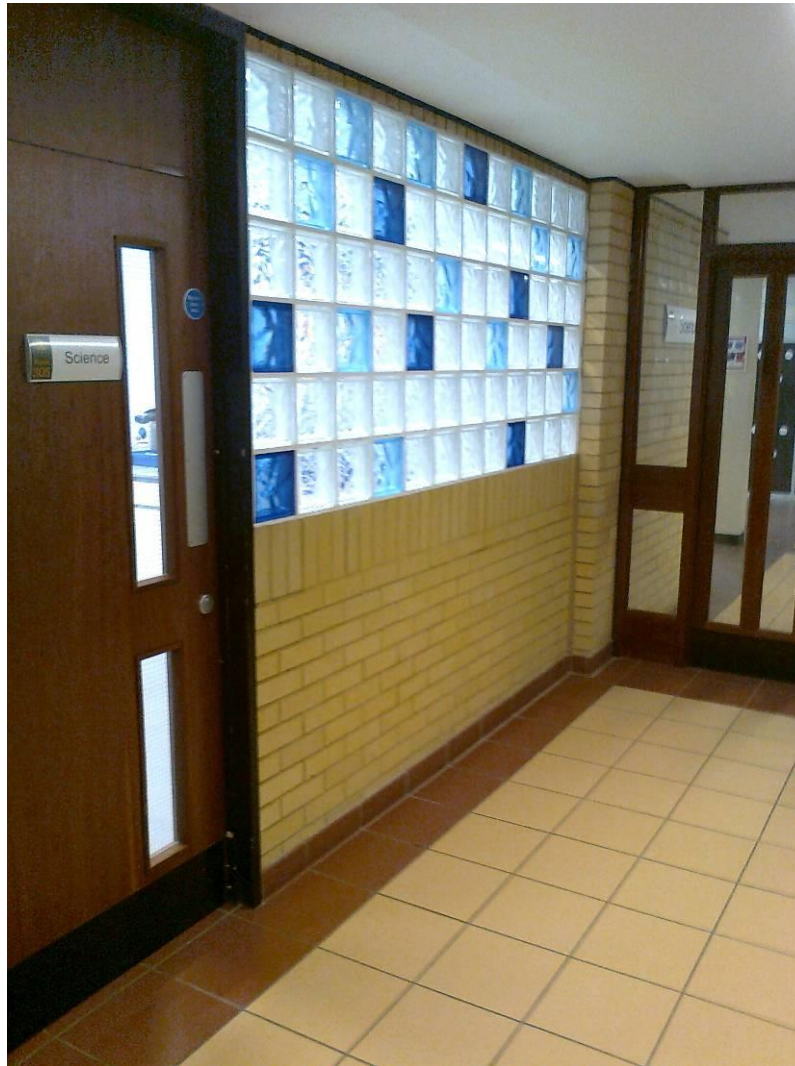


Drop Zone



East Barnet School (*Project Faraday*)

# Glass brick wall



Bentley Wood School

# Glass wall



Tottenham UTC



# Agile



Touchdown wall

Informal meeting pod



spaceoasis



# Agile



Screened desking oasis

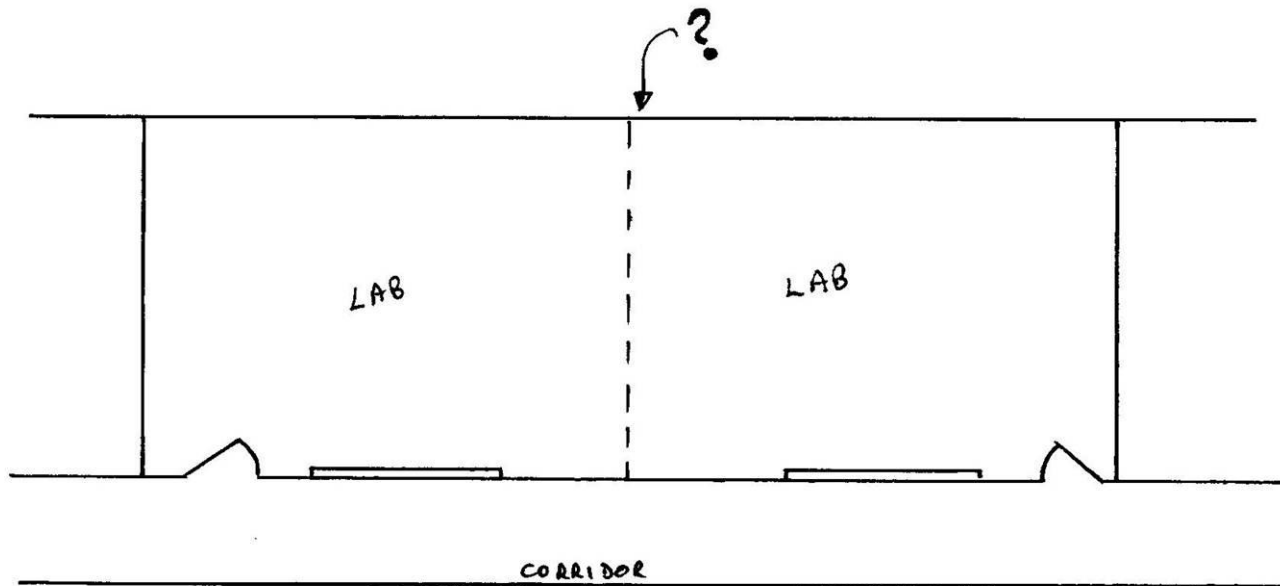


spaceoasis

Cleared away

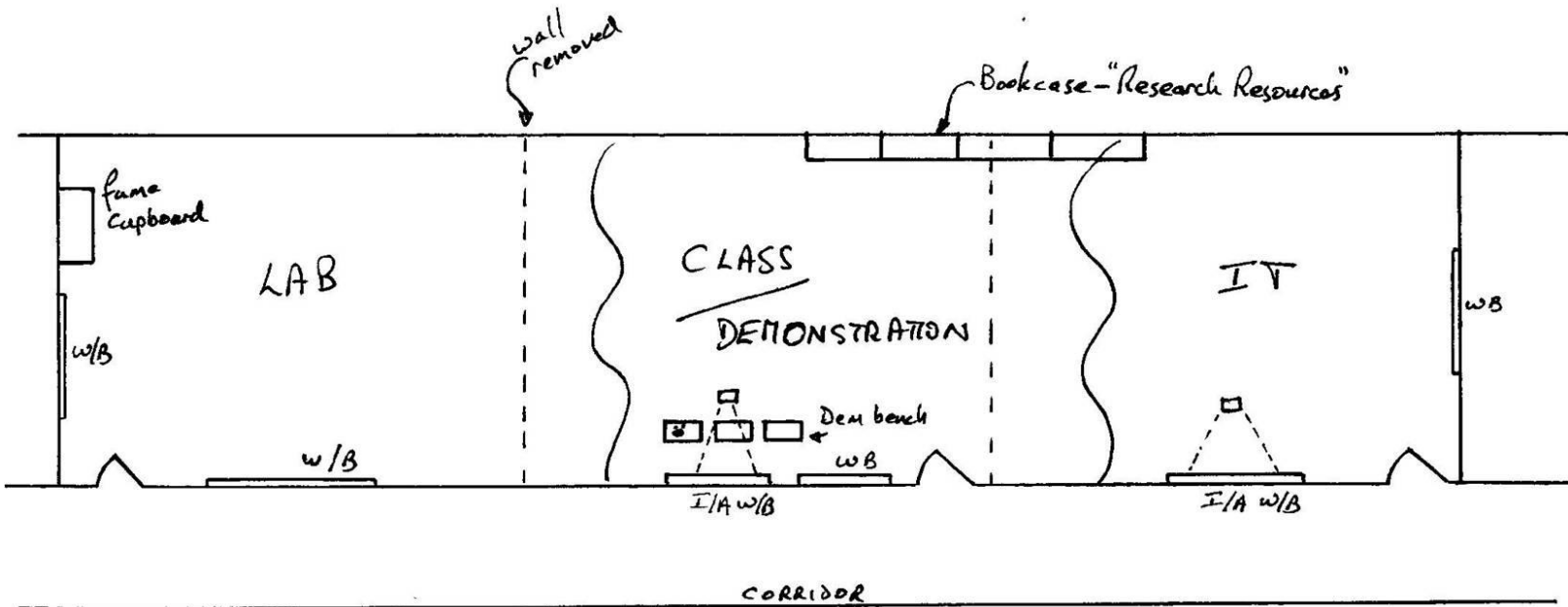


# 2 into 1



Anon

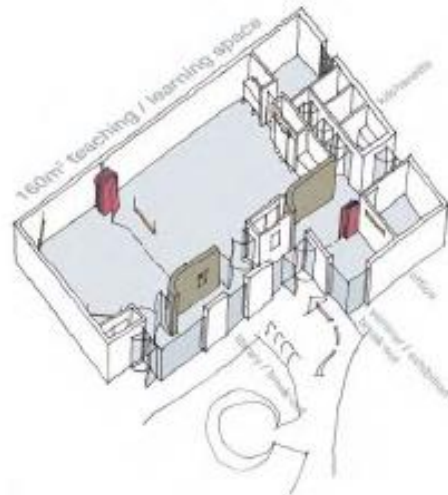
# 3 into 1



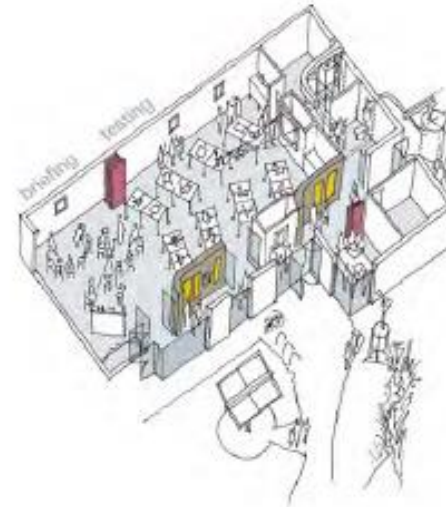
Anon

# Flexible use – Eco-lab

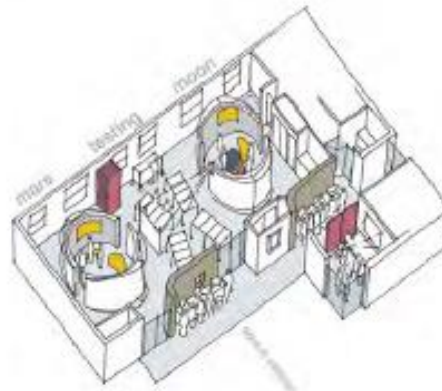
## Project Faraday



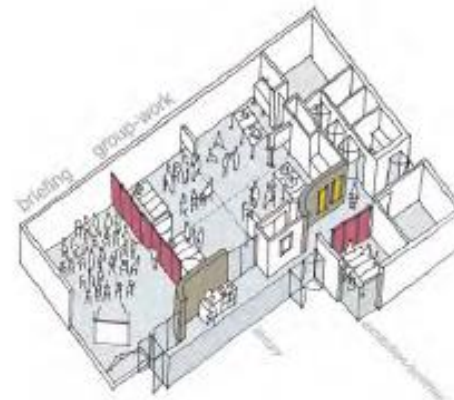
Cut-away view of the eco-lab shell showing key features: a large multi-purpose space with storage walls, breakout space lined with rammed-earth walls, small quiet rooms. The optional layouts shown here demonstrate the centre's flexibility.



The main room is set up to learn about sustainable buildings with one zone for briefing and discussion and another for testing materials. Interactive display in the breakout area is visible on entry. Sustainability features are easily seen by those using the centre.



The whole building is set up for a special project where students play members of a space exploration scheme. Inflatable 'pods' are used to create different environments and 'space stations' are set up in the breakout area.



The building becomes a field centre. The main room is divided into two spaces – one for briefing about the local habitat and one for analysing samples collected locally. An exhibition in the seminar room and IT resources in the breakout area support independent study.

Mary Webb School  
and Science College



# Prep room -- plants



SLC NW

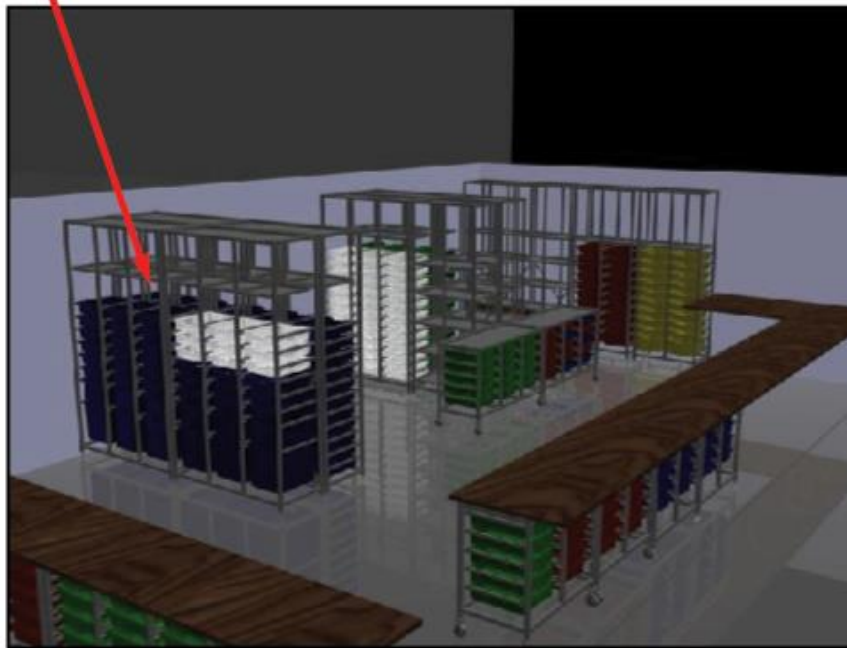
# Prep Room – use of trays



Tower Hamlets College

# Prep Room – height of storage

No trays above eyesight for safety reasons



Gratnells

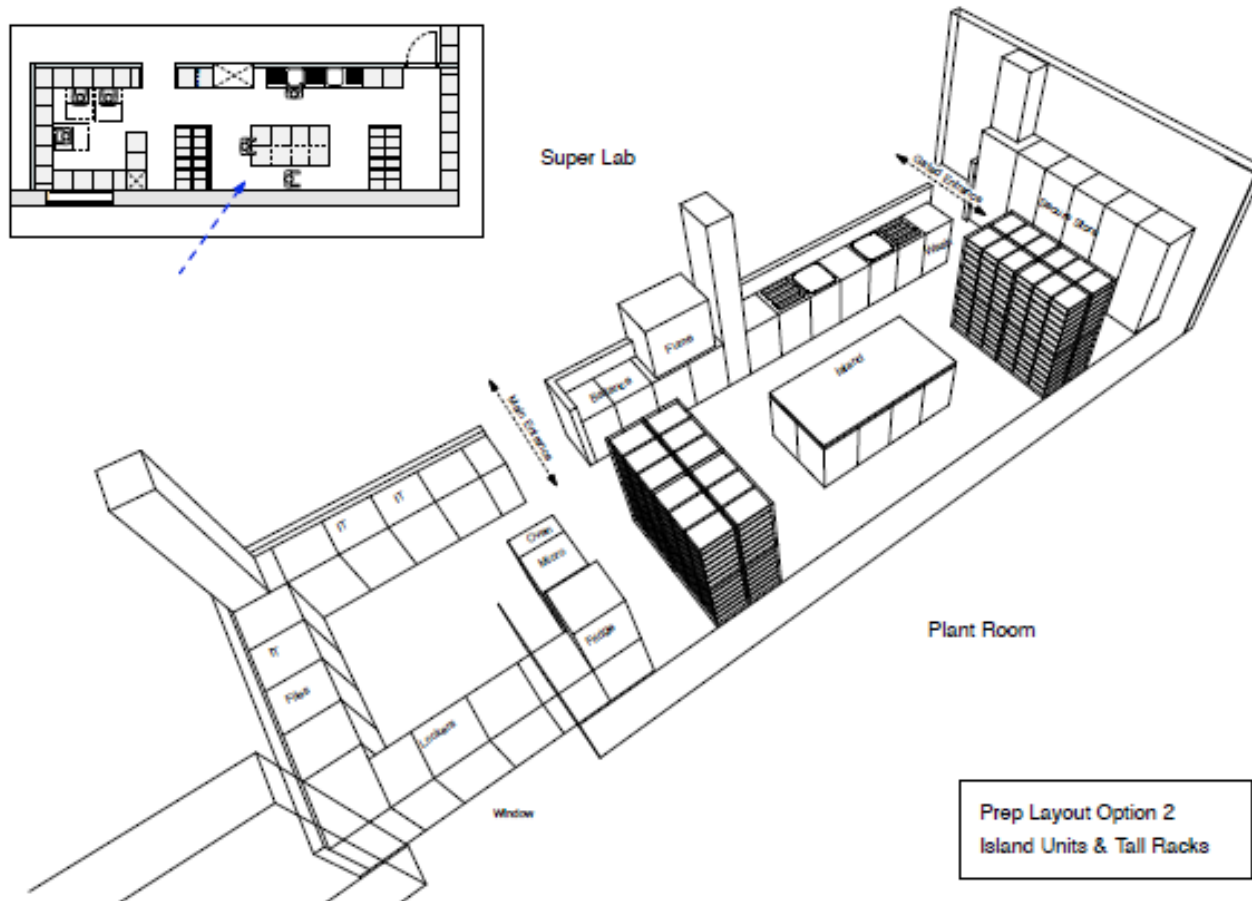
# Prep Room – rolling storage



Gratnells



# Superlab – Open Prep



Hayesfield