



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

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.

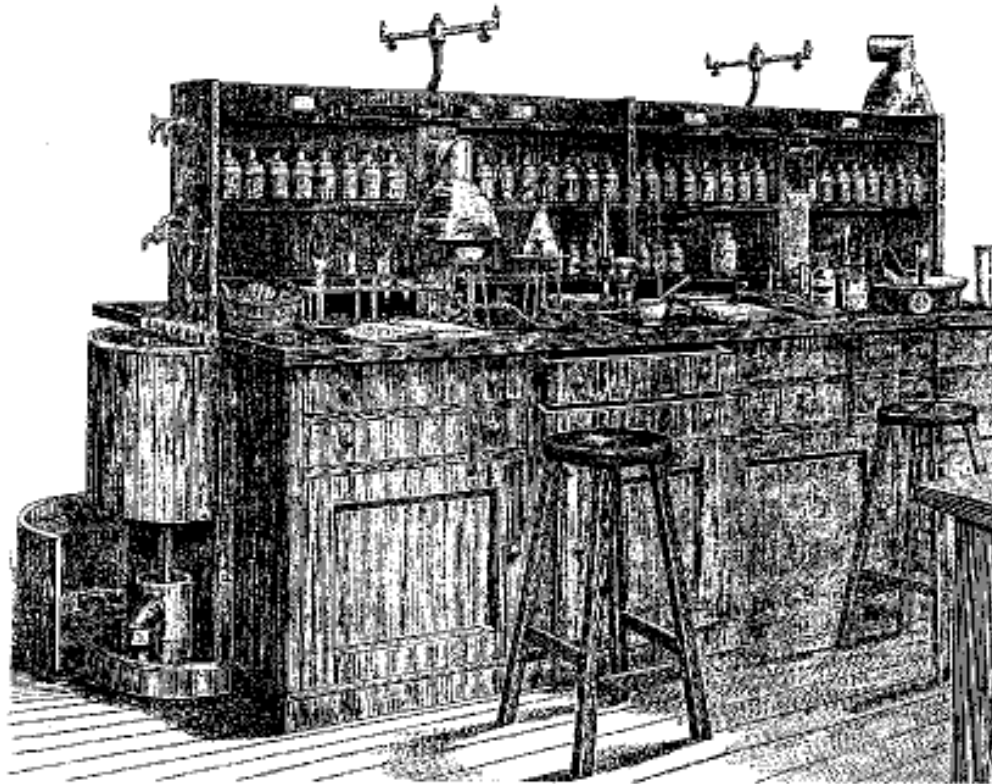
Where possible, designs have been attributed to the appropriate firm or organisation.



**The Association
for Science Education**

Promoting Excellence In Science Teaching and Learning

The way they used to be ?



from CLEAPSS Guide L14, 2000

Circles – double Lab



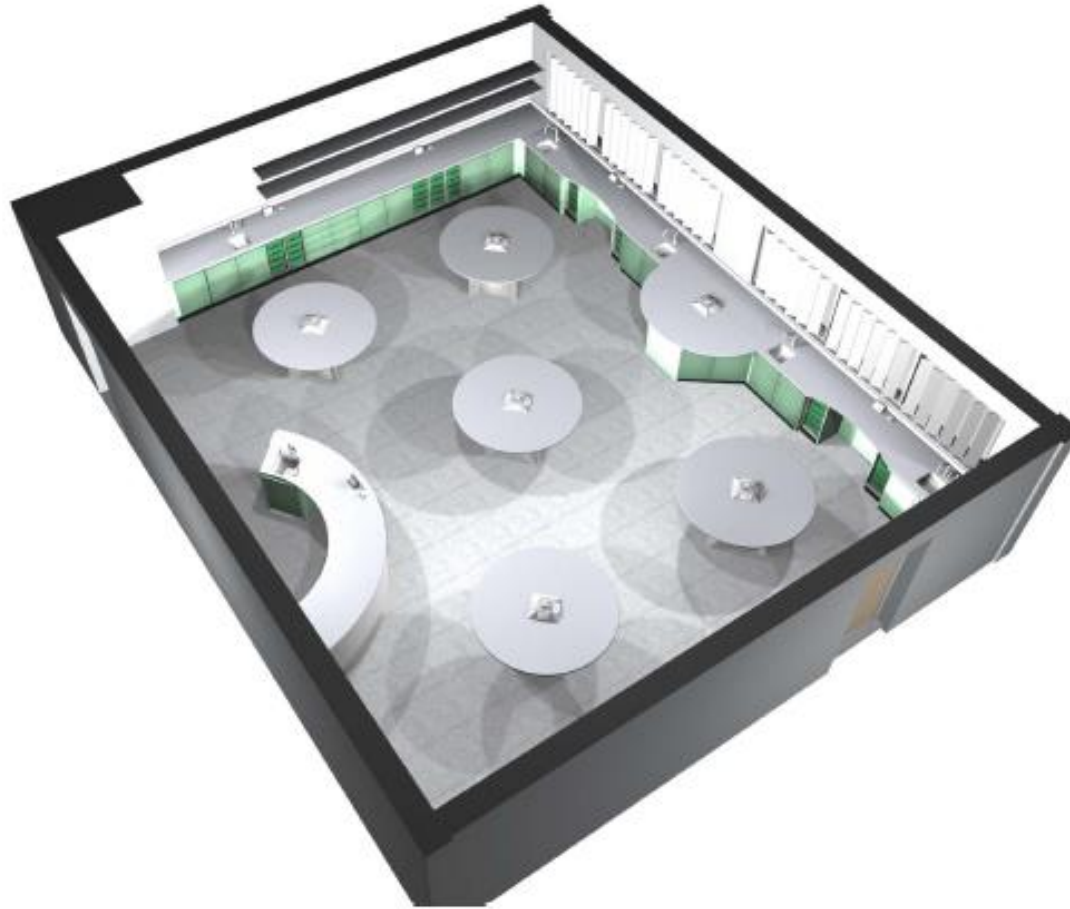
National SLC, York

Circles - linked



S+B

Circles and perimeter



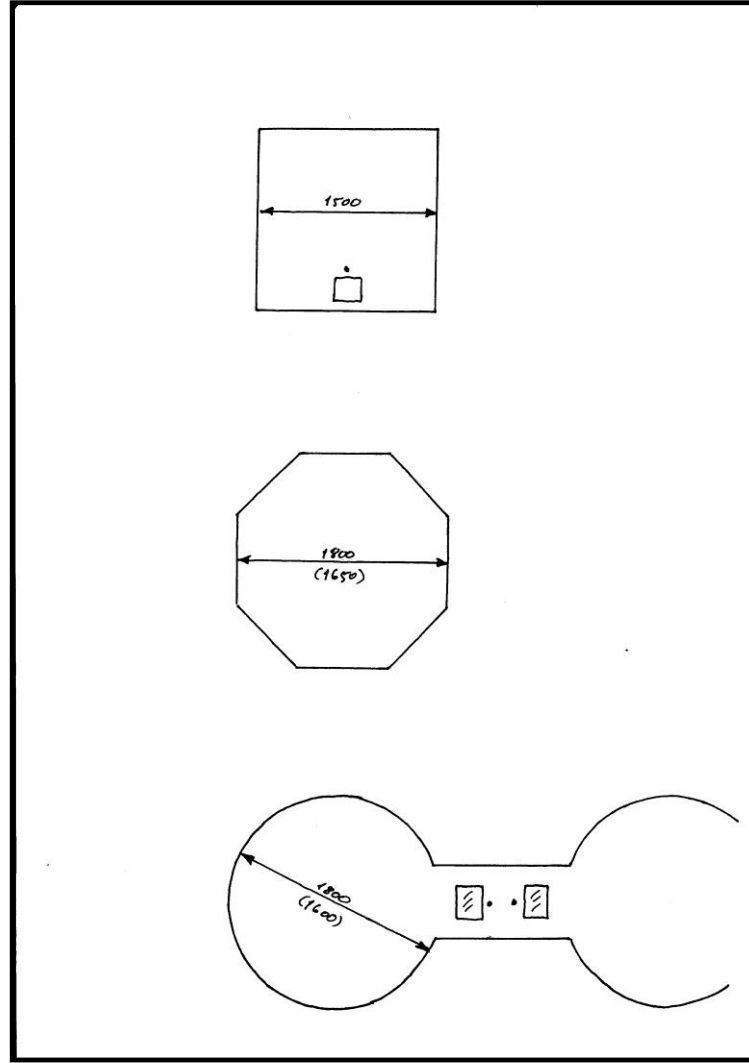
Frith Architects

Circle - adjustable



British Thornton

Square – Circle - Octagon



Octagons – linked 1



LDTL

Octagons – linked 2



LDTL

Octagons - linked



ESA

Octagons – tall services



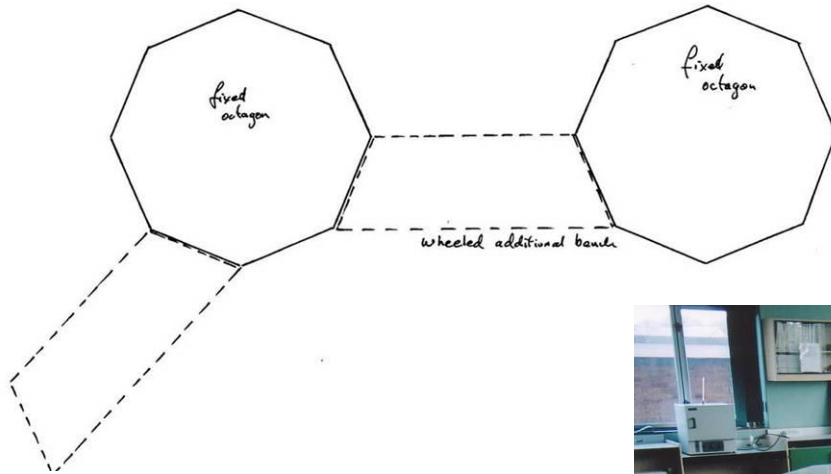
ESA

Octagons – separate practical area



Chemistry - Anon

Octagon + Trapezium



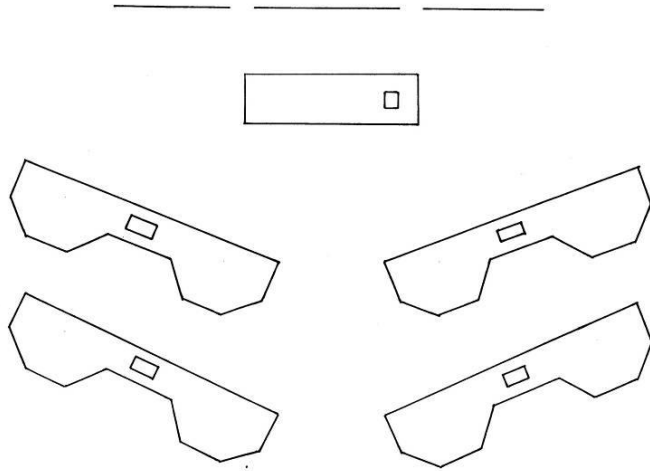
Staffordshire with S+B

Octagons – Special School



LDTL

Half Octagons



Anon

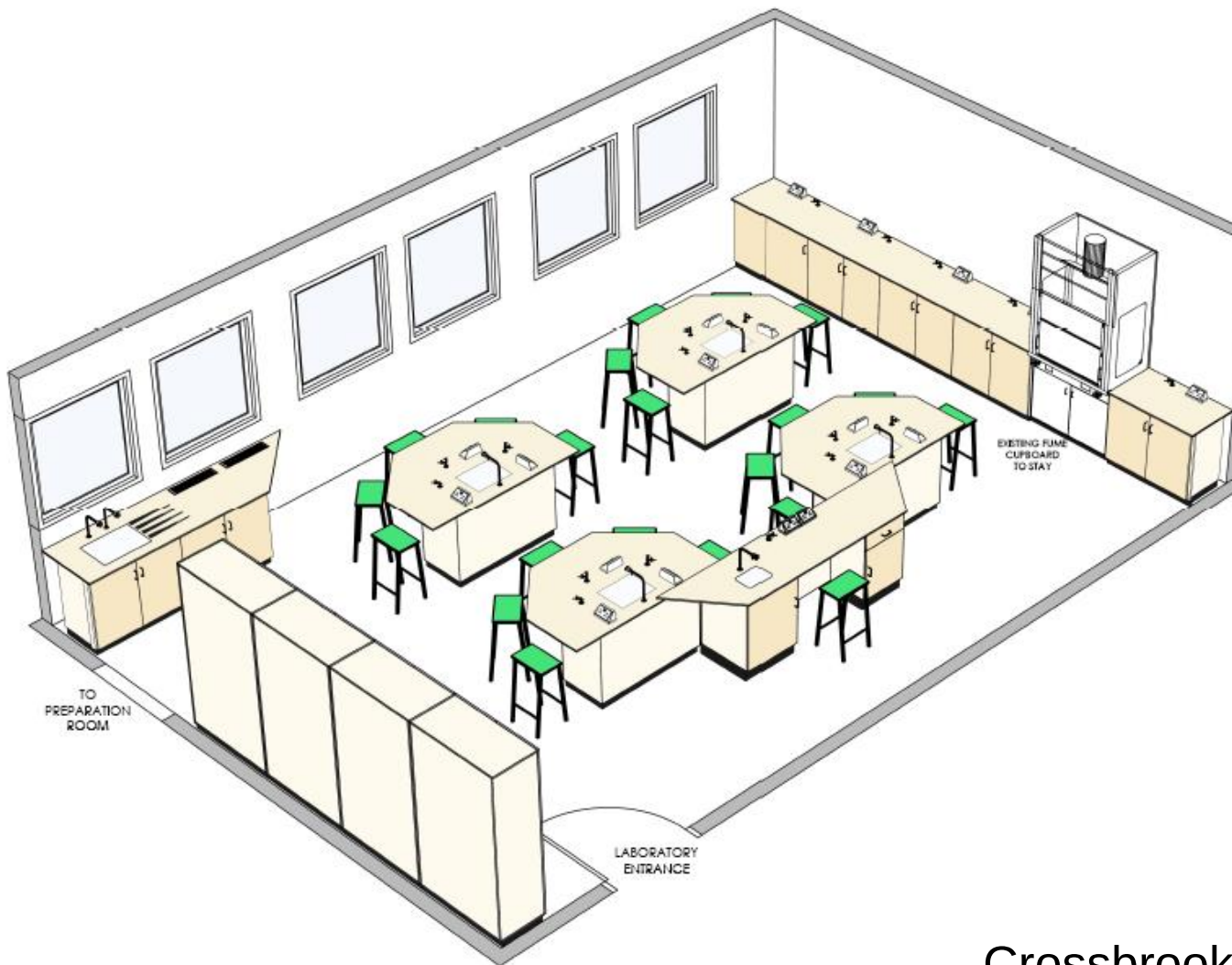


Octagons – in line



Anon

Half Octagons



Crossbrooks

Peninsula - Octagon



Key Stage



Peninsulas 1



LDTL

Peninsulas 2



LDTL

Thin peninsula



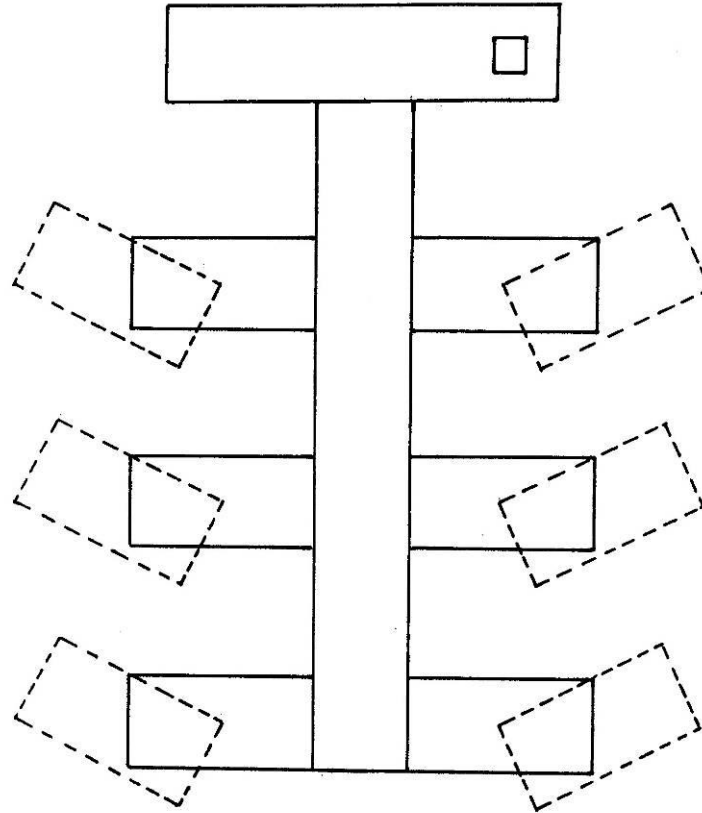
Anon

Perimeter - ICT



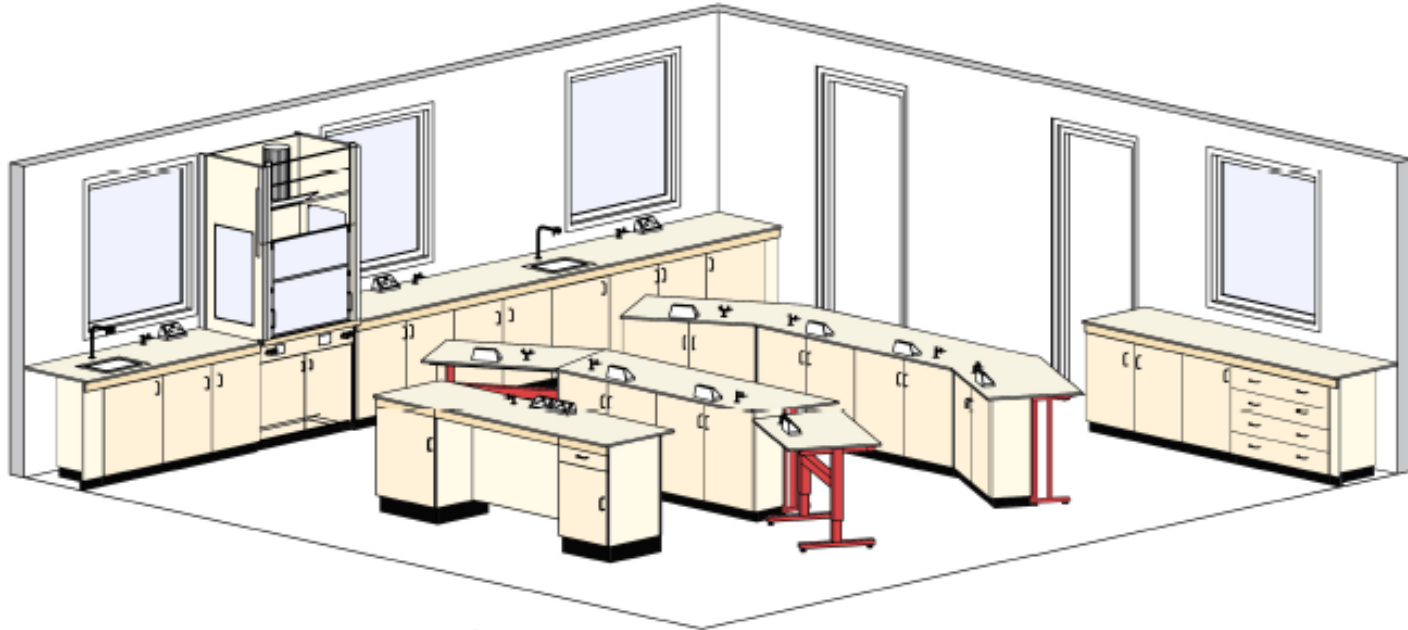
ESA

Central spine



Anon

Traditional - updated



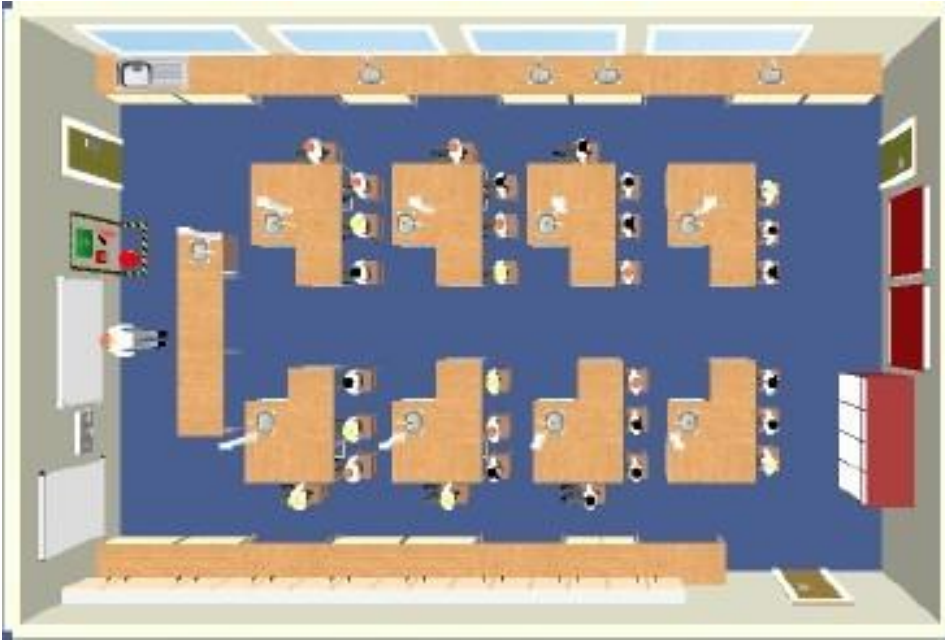
Crossbrooks

Rectangles – fixed bollards



LDTL

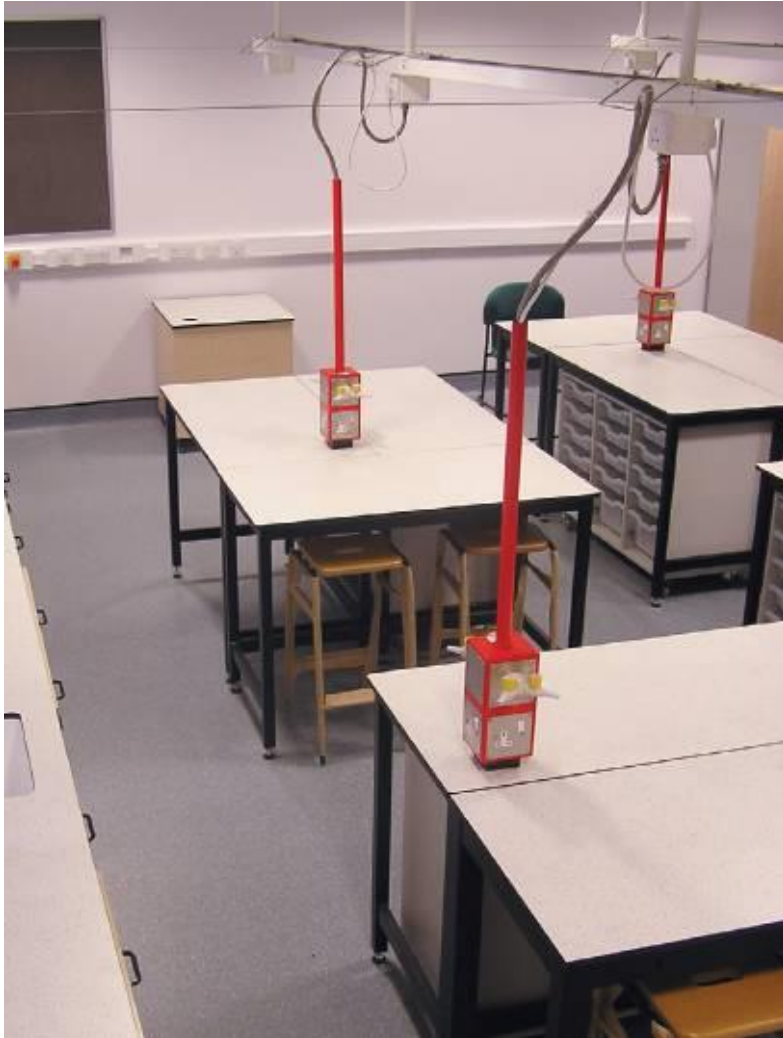
Rectangles – overhead services



LDTL + Anon



Rectangles – overhead services



Grant Westfield

Overhead services



Tottenham UTC

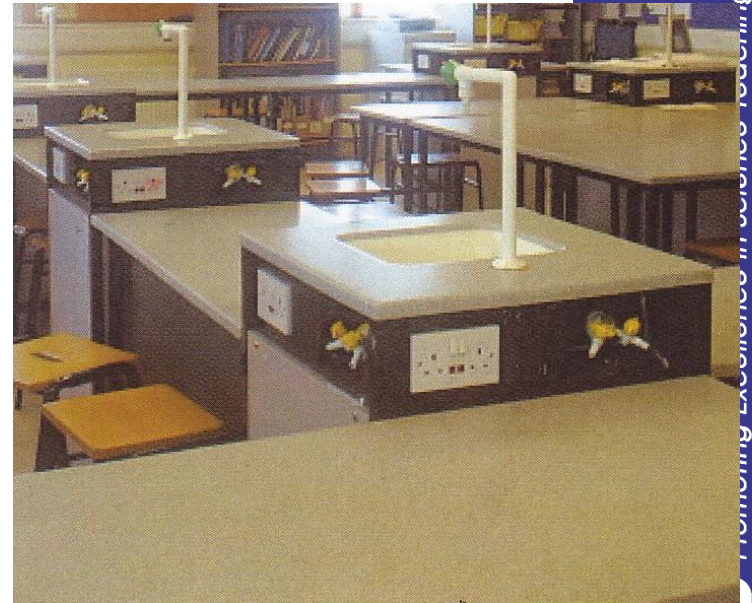


Note – *flexible pipes and cables not shown*

Rectangles – tall bollards



Bluecoat School



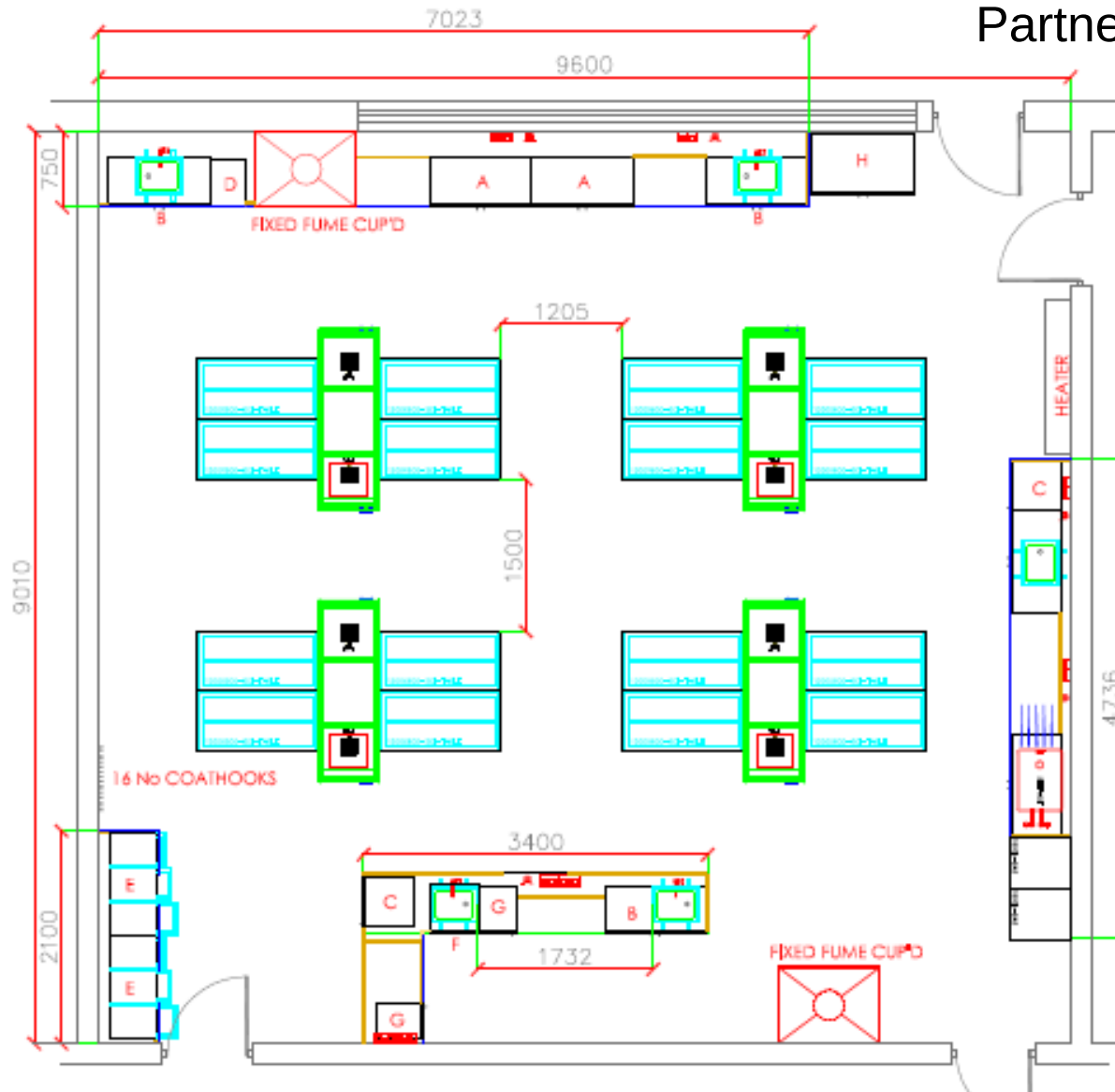
Home made – slide under benches



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

Teardrops - Circle



S+B Mercury + Saturn

Colour and Illumination



Saturn

Saturn +
Mercury

S + B

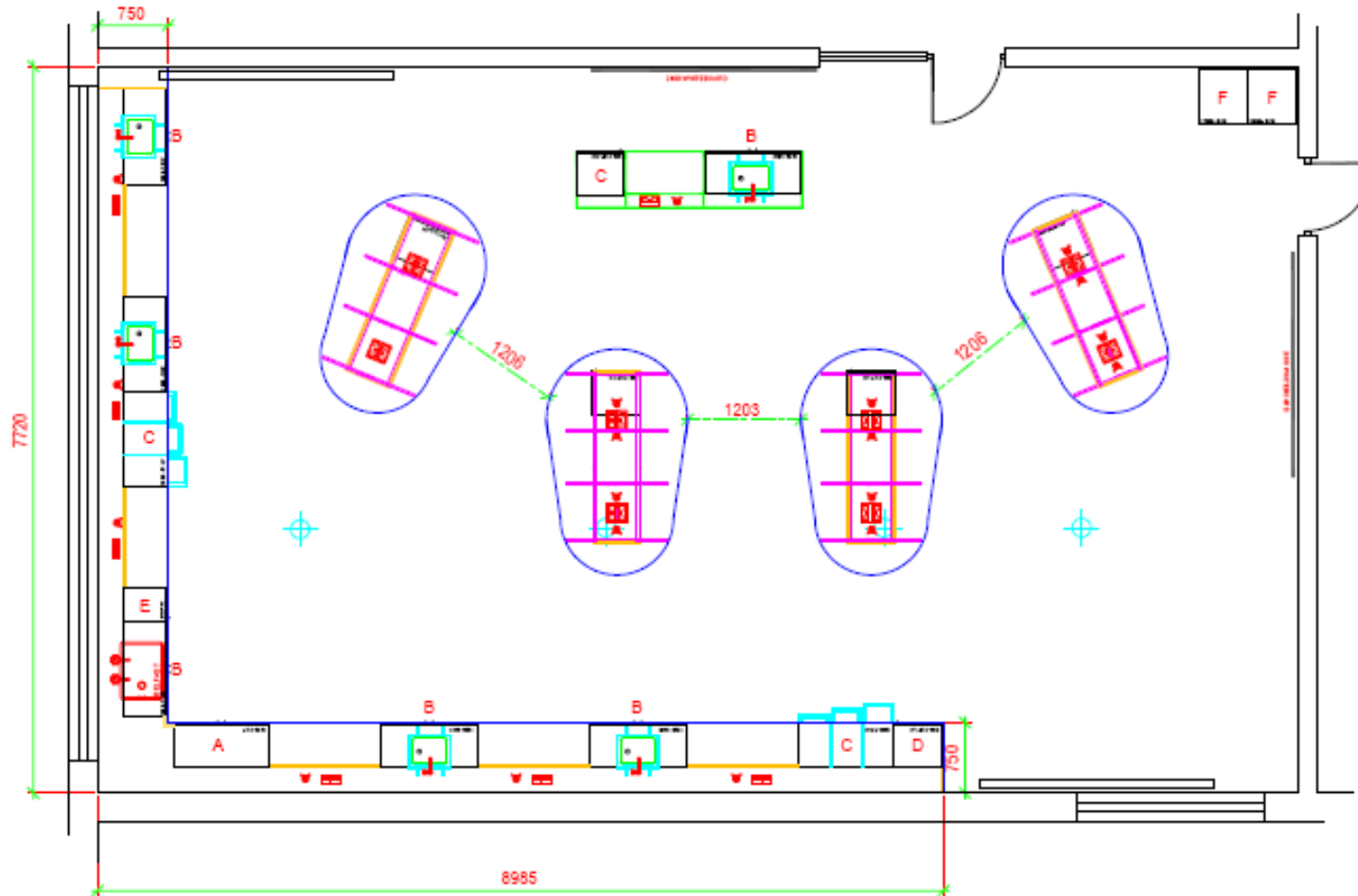


Teardrops – tutorial + dem room



LDTL

Teardrops – wide end forward



Staffordshire

Drawing by

A-Z Partnership Ltd

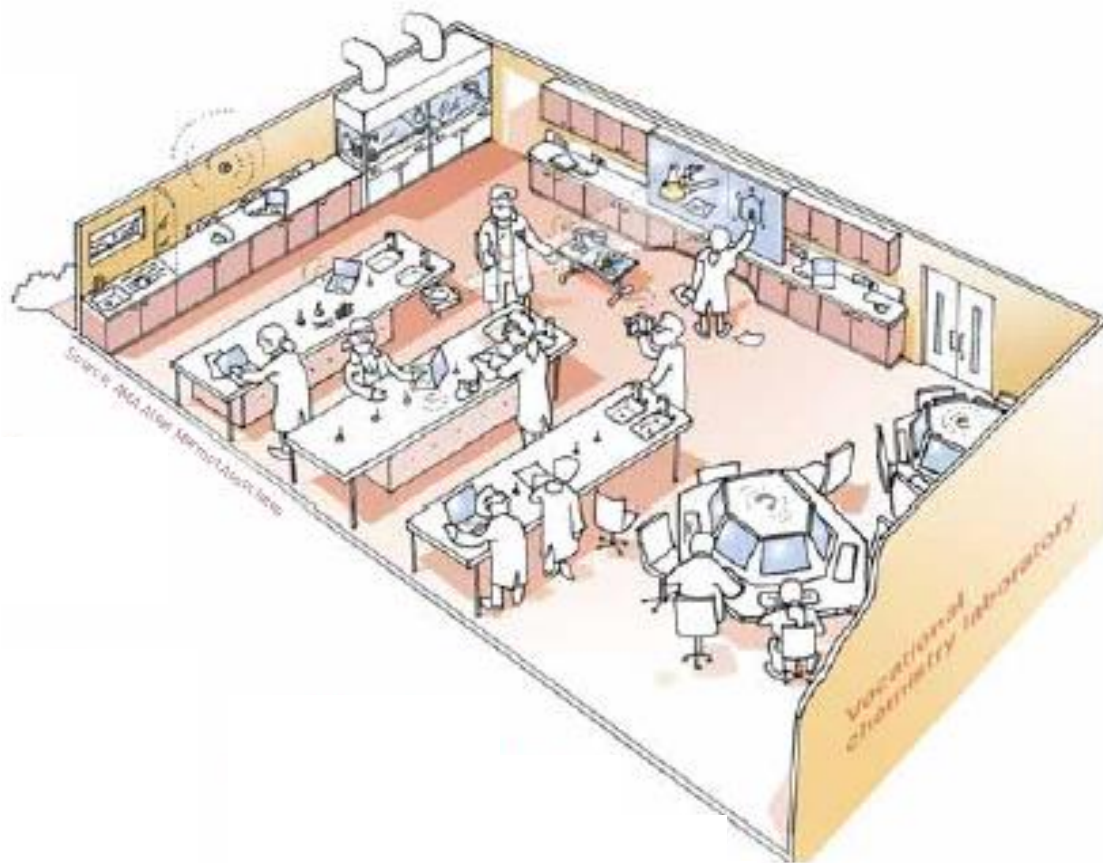
Centre of circle



Bideford College

Project Faraday

Vocational Chemistry



JISC

Secure

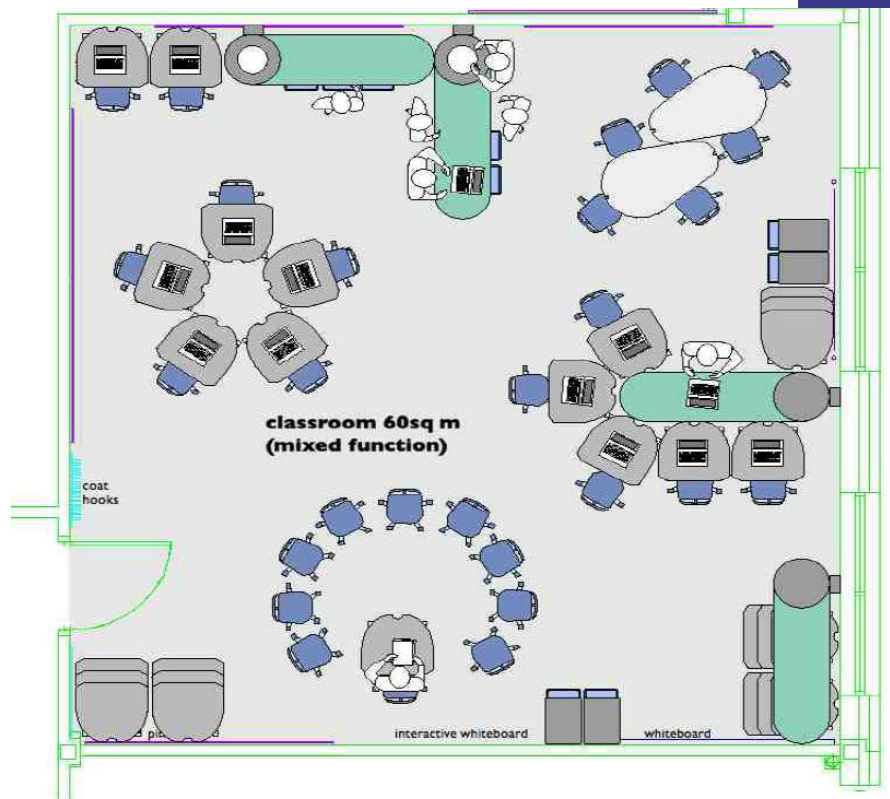


Key Stage - Secure

Rotatable service bollard



Reaction furniture



British Thornton

Lab 21 – Lab 1



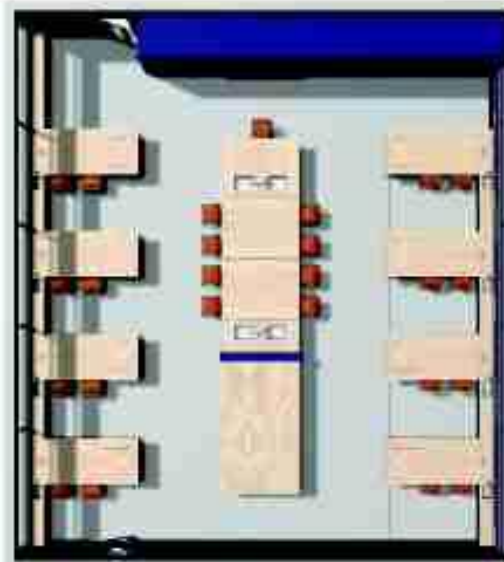
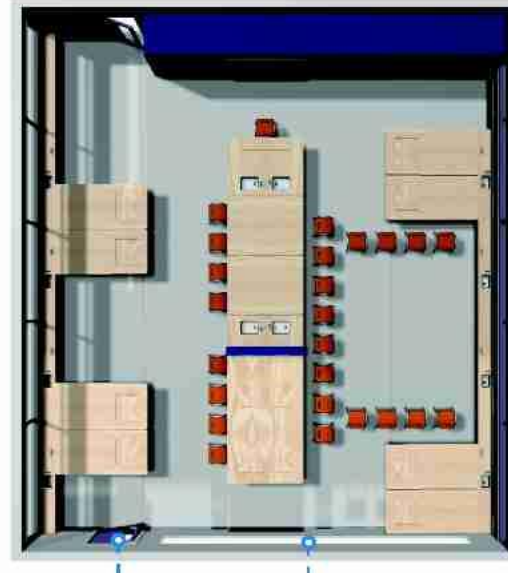
DENI

Lab 21 – Lab 1



ICT

role play



practical

DENI

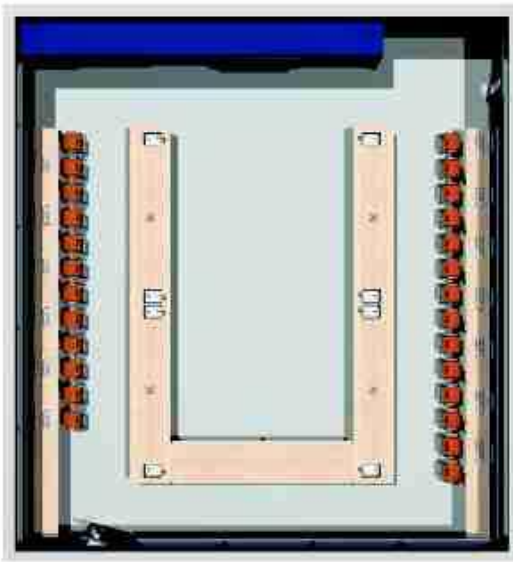
Lab 21 – Lab 2

Teaching wall

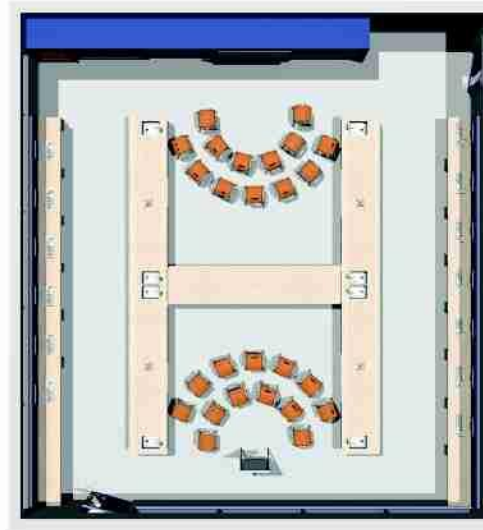


DENI

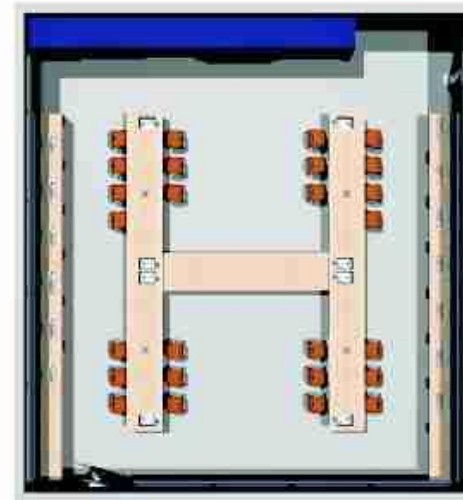
Lab 21 – Lab 2



ICT



discussion 1



discussion 2

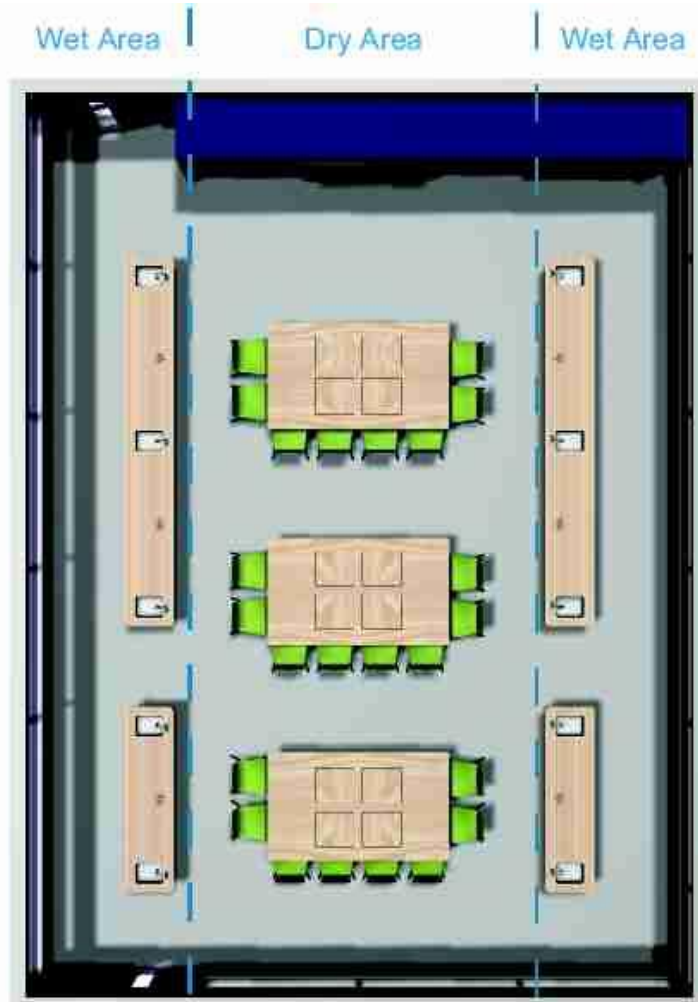
DENI

Lab 21 – Lab 3



DENI

Lab 21 – Lab 3



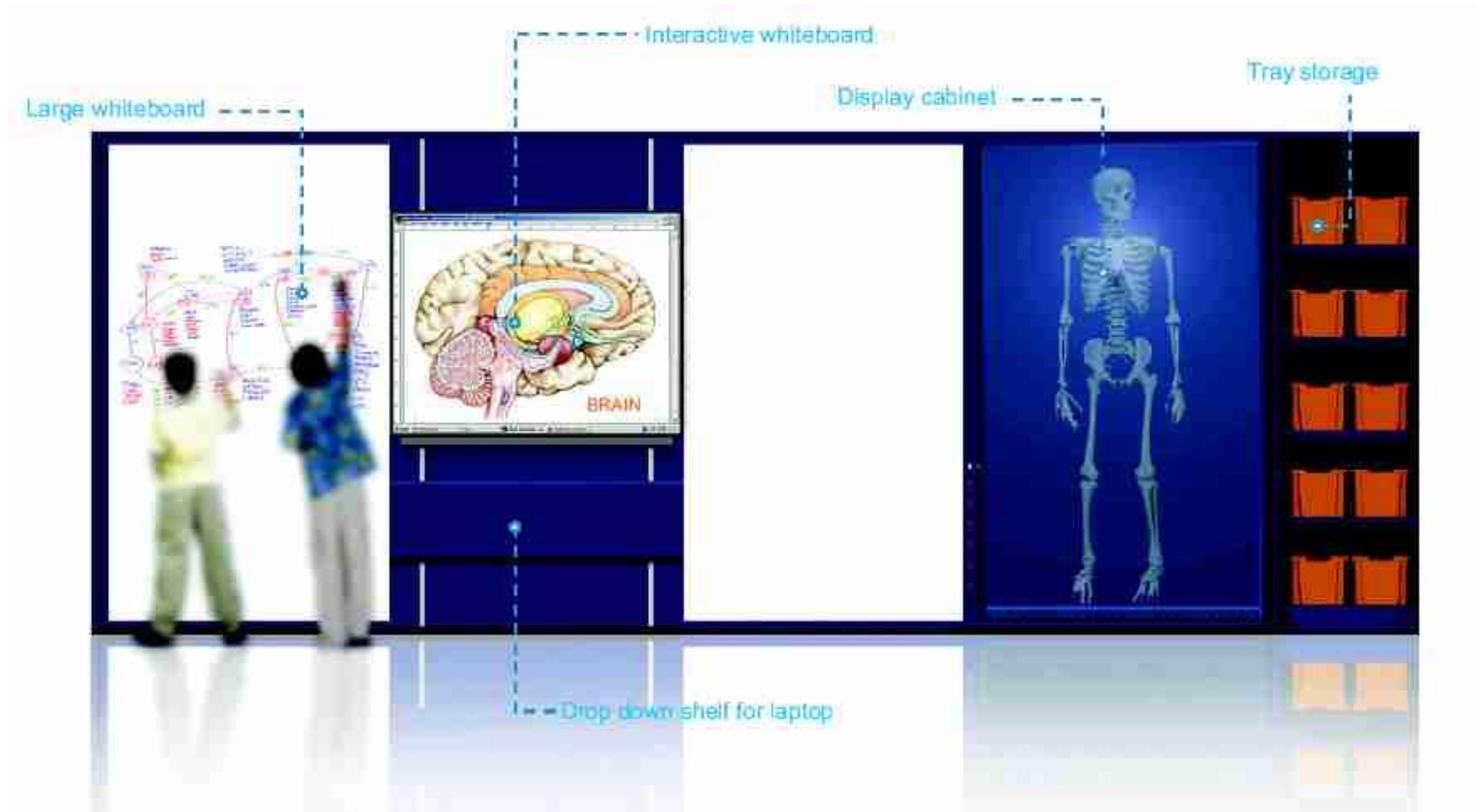
Wet & Dry



ICT

DENI

Lab 21 – Teaching Wall



DENI

Lab 21 – Teaching Wall



DENI

Teaching wall – with short-throw projector



S + B

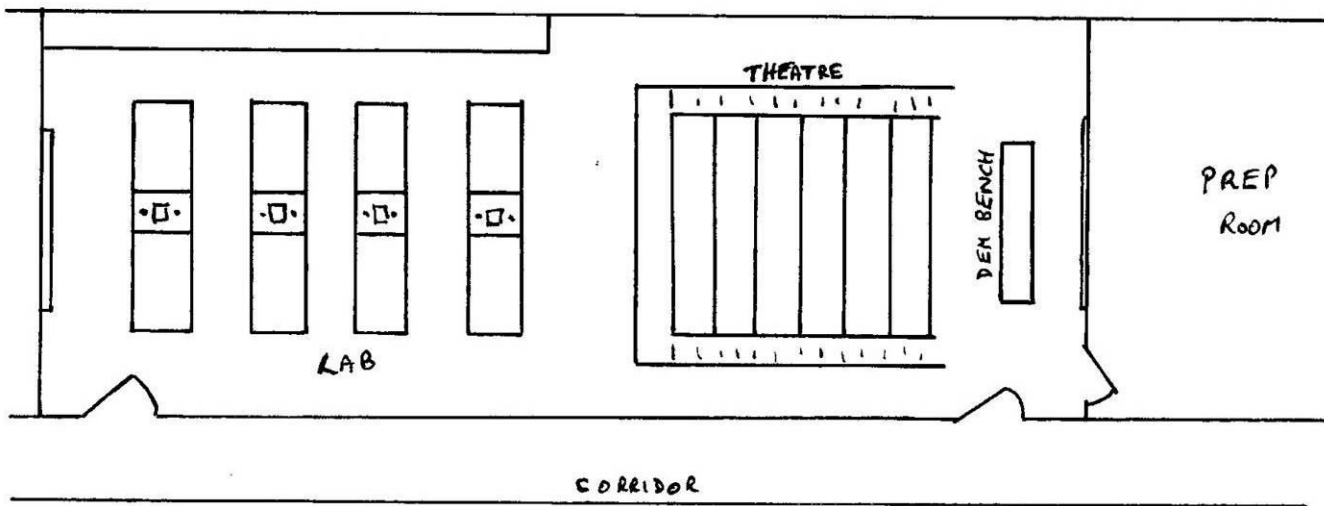
Secure



SLC North East with S+B

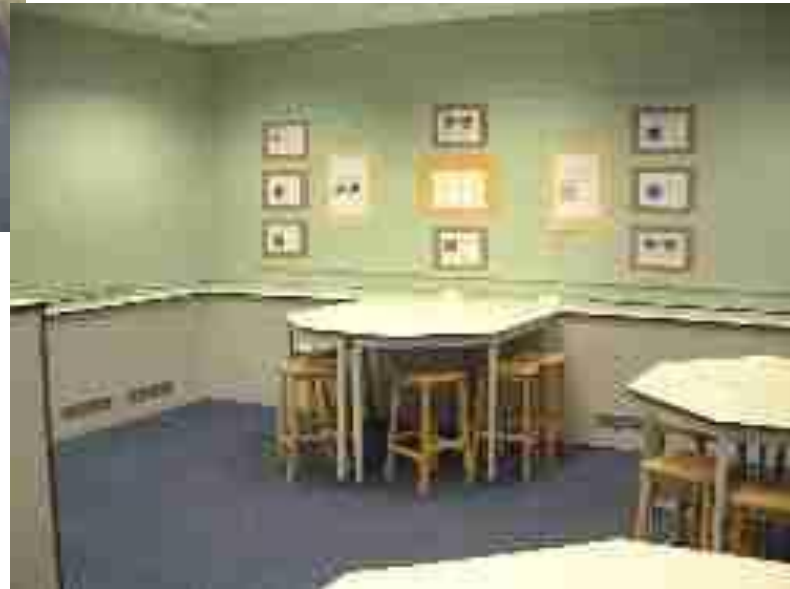


Lecture - practical



1970s Grammar School

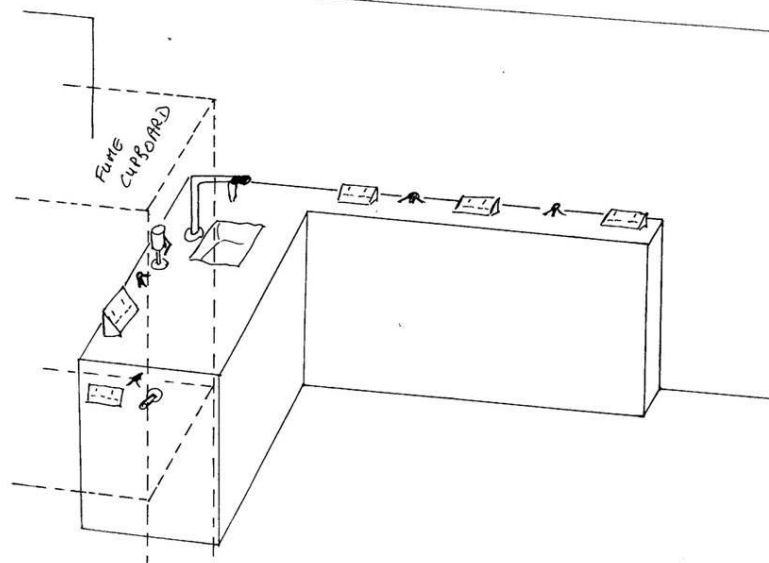
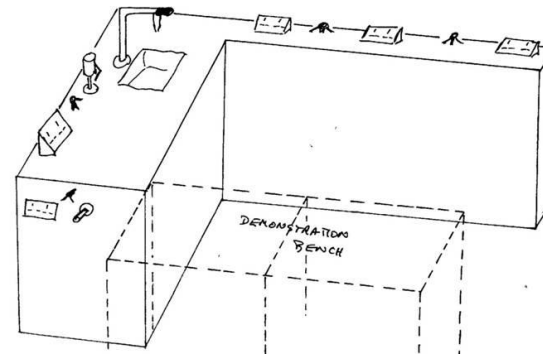
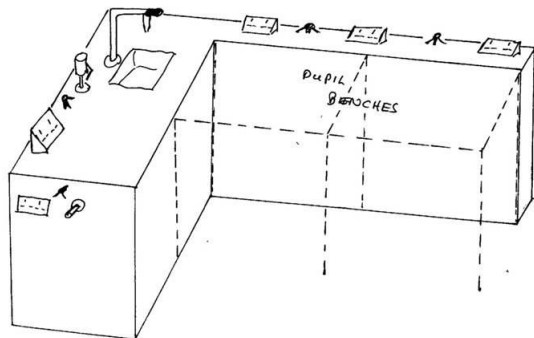
Lecture - practical



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

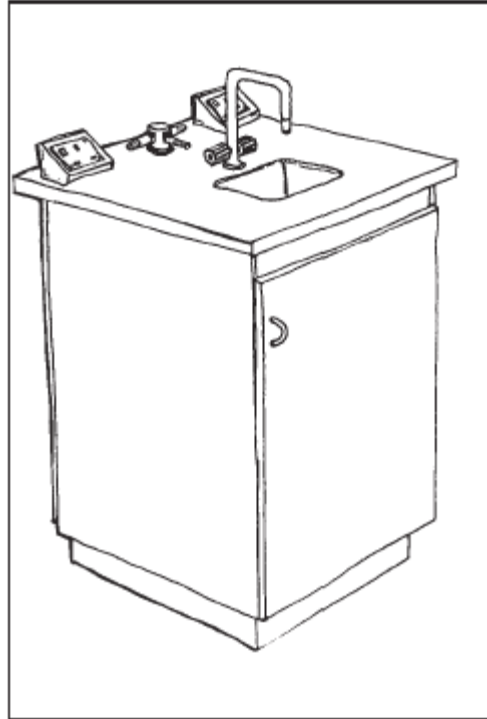
Special bench - adjustable



British Thornton

Service bollard

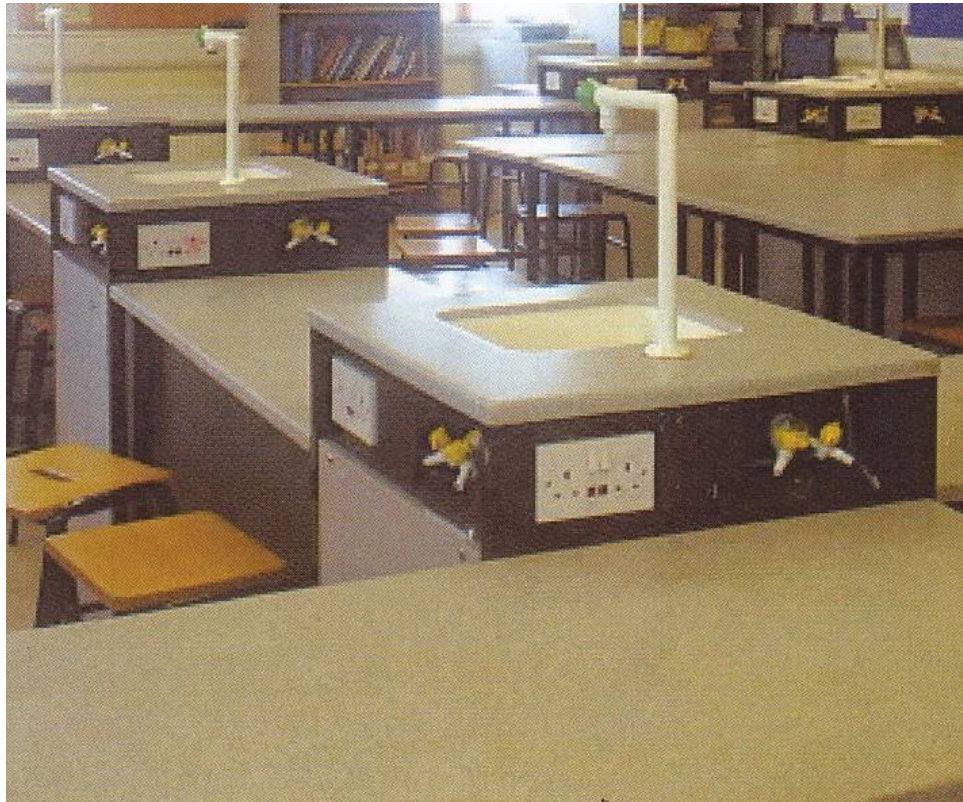
- same height as benches



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



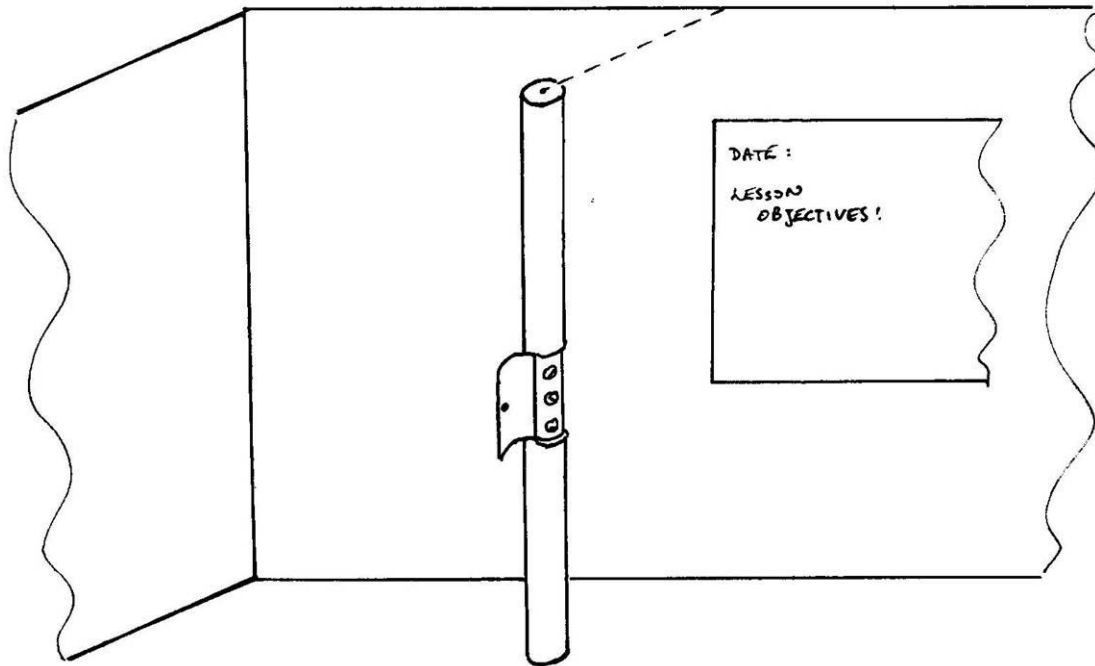
Anon

Thin perimeter services and display



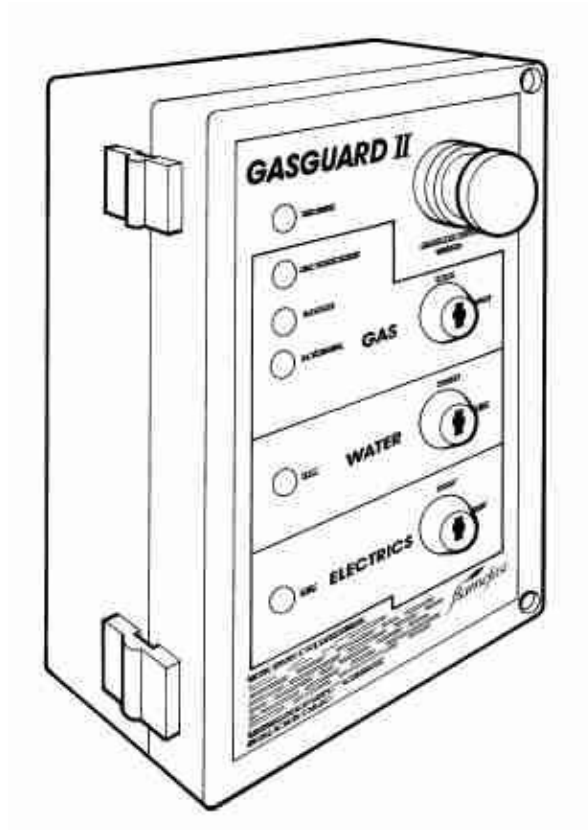
Key Stage – concept design

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

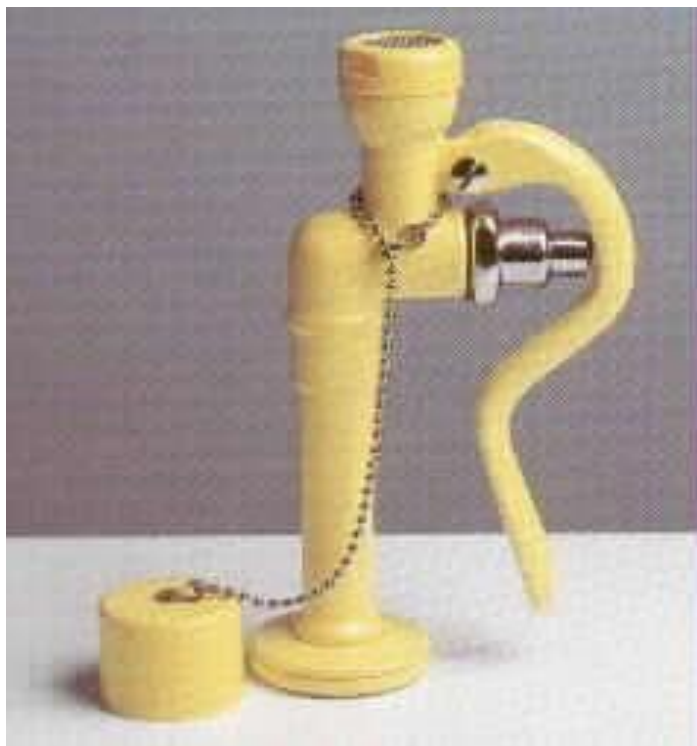
via 'Heat and Combustion Supplies'

Health & Safety area



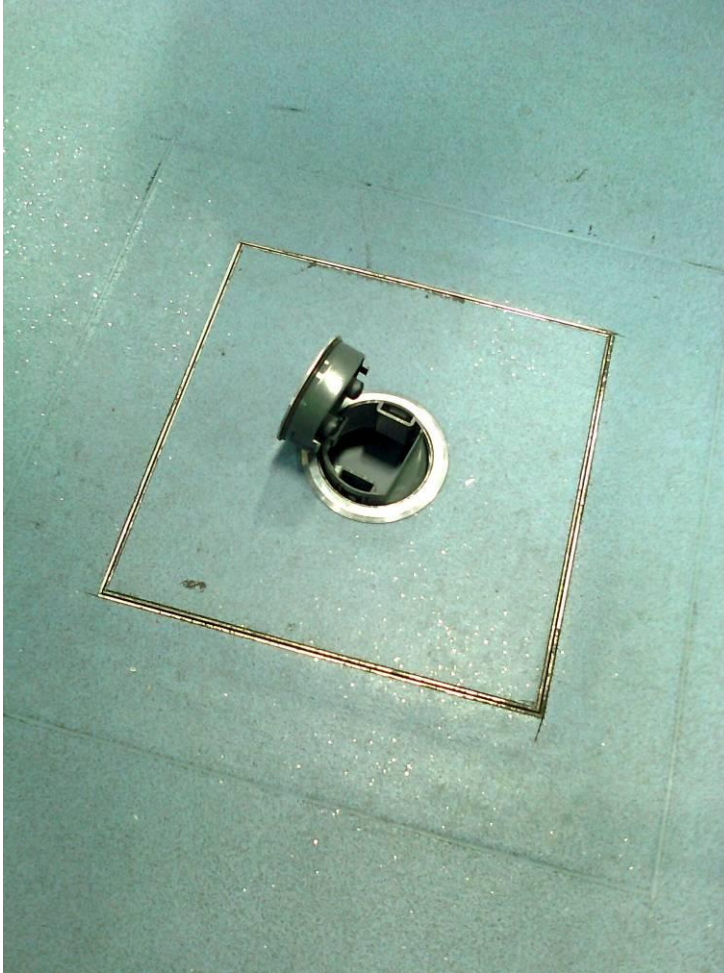
LDTL

Emergency eyewash



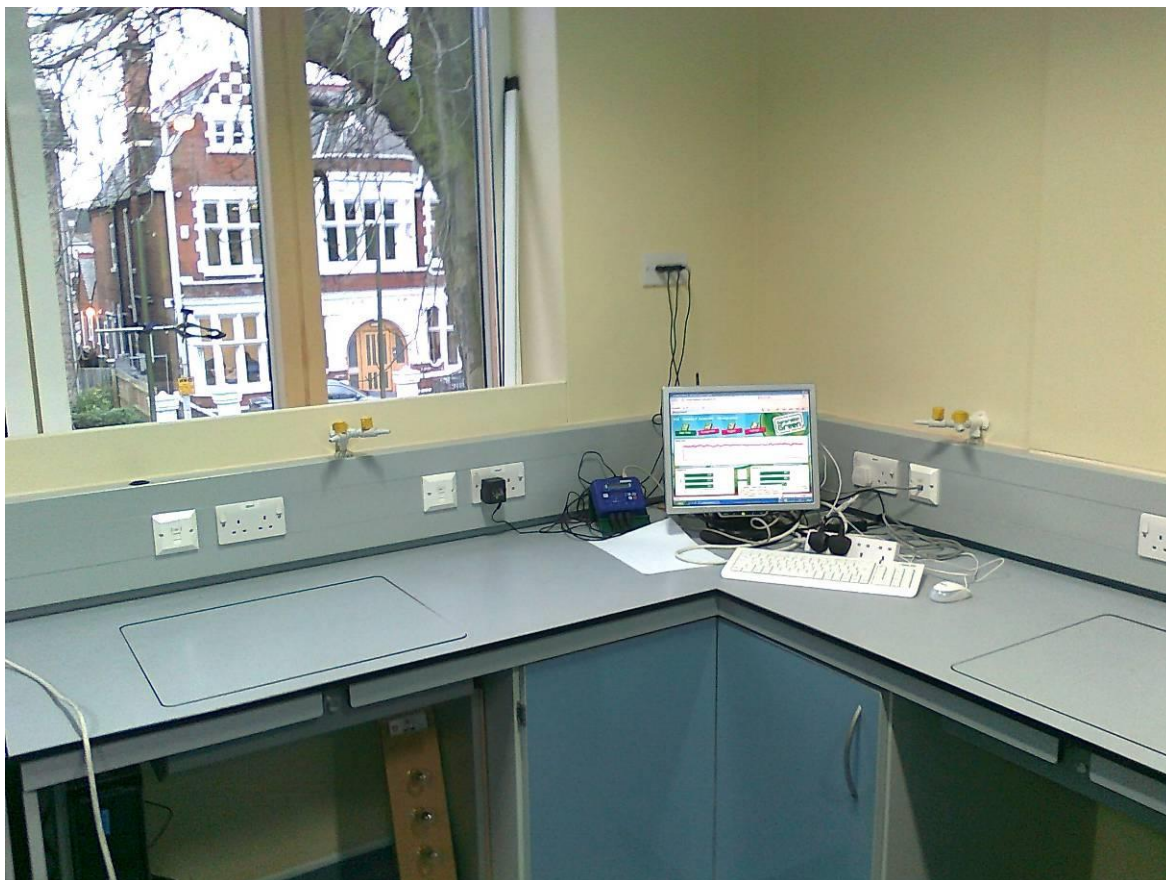
Arboles

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!

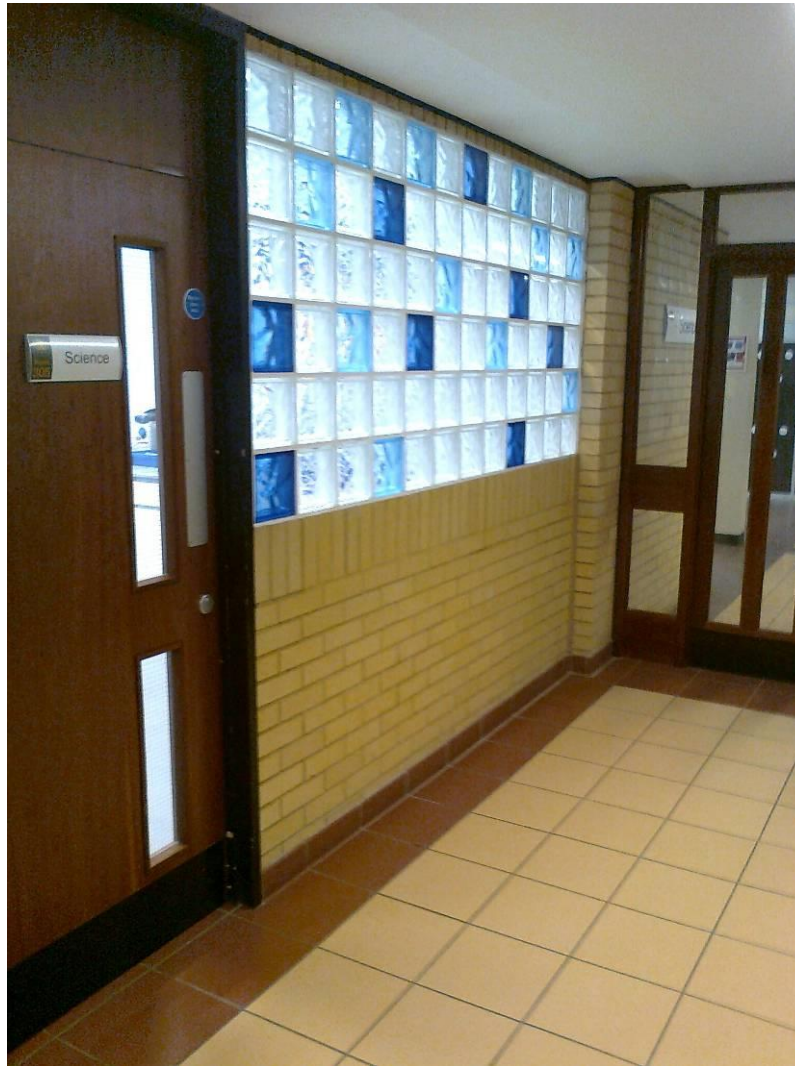


Drop Zone



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

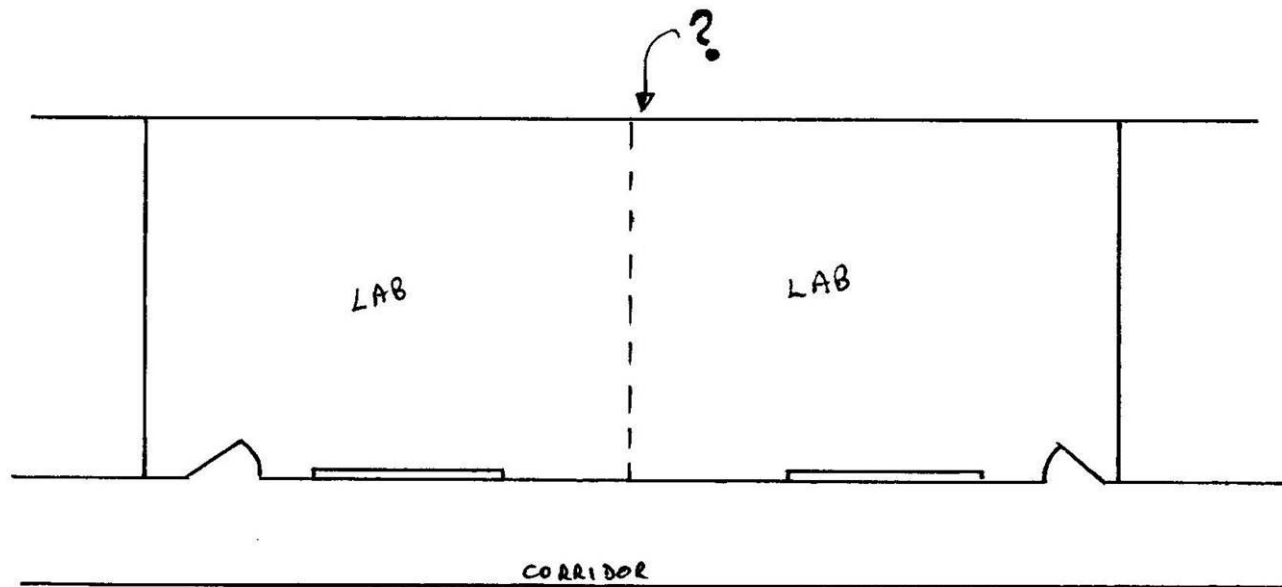
spaceoasis



Cleared away

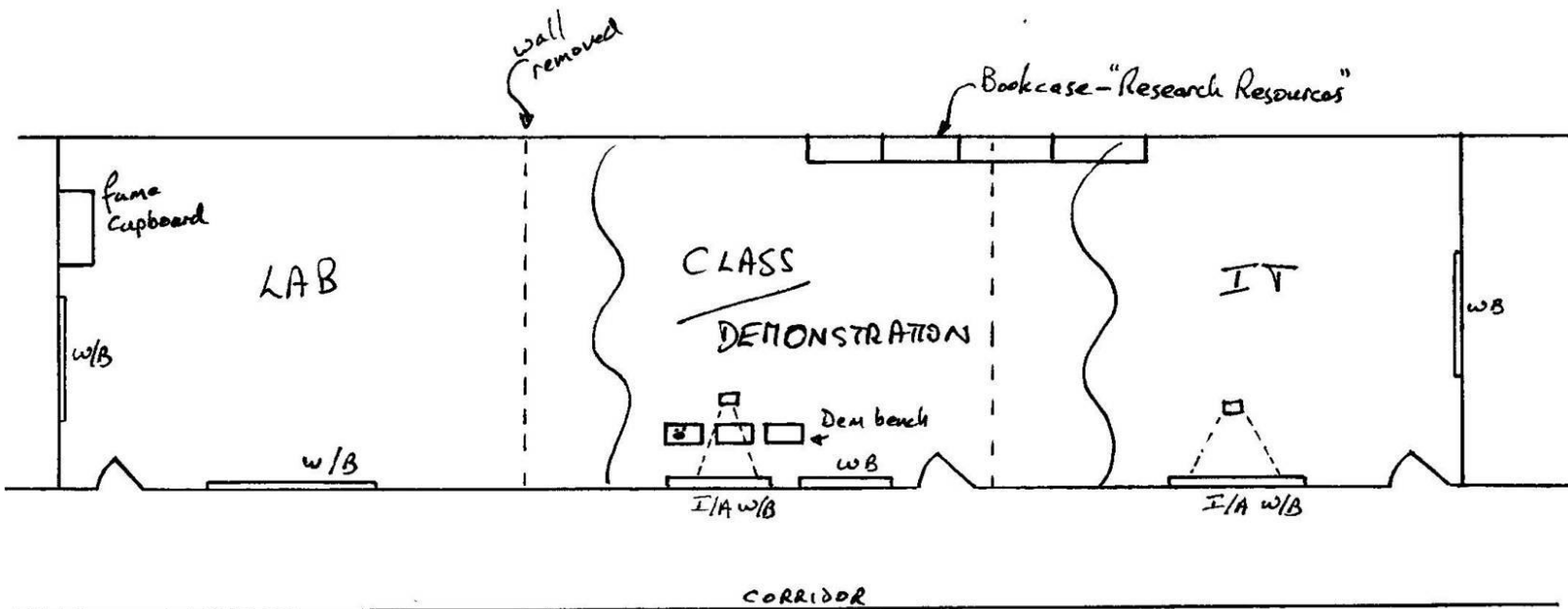


2 into 1



Anon

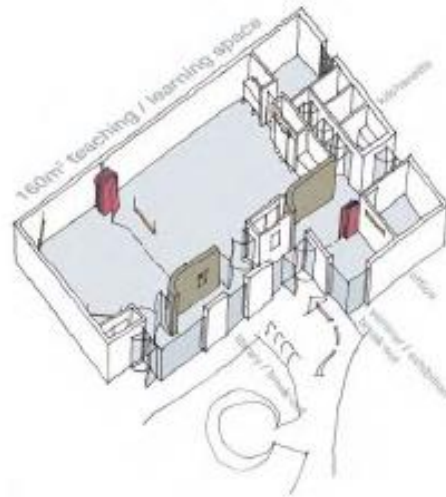
3 into 1



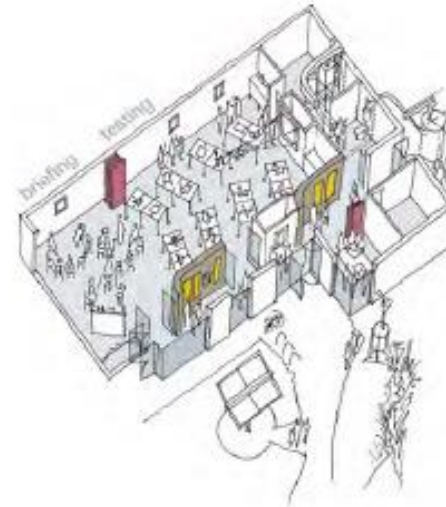
Anon

Flexible use – Eco-lab

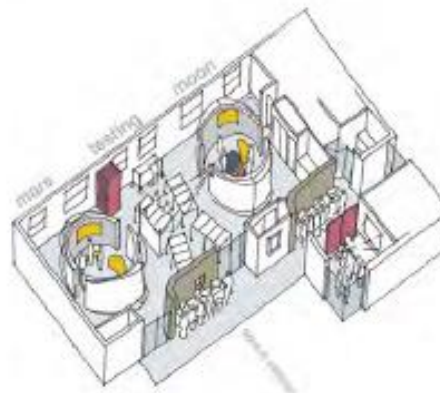
Project Faraday



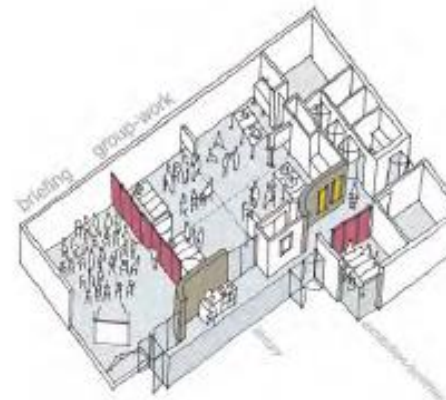
Cut-away view of the eco-lab shell showing key features: a large multi-purpose space with storage walls, breakout space lined with rammed-earth walls, small quiet rooms. The optional layouts shown here demonstrate the centre's flexibility.



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

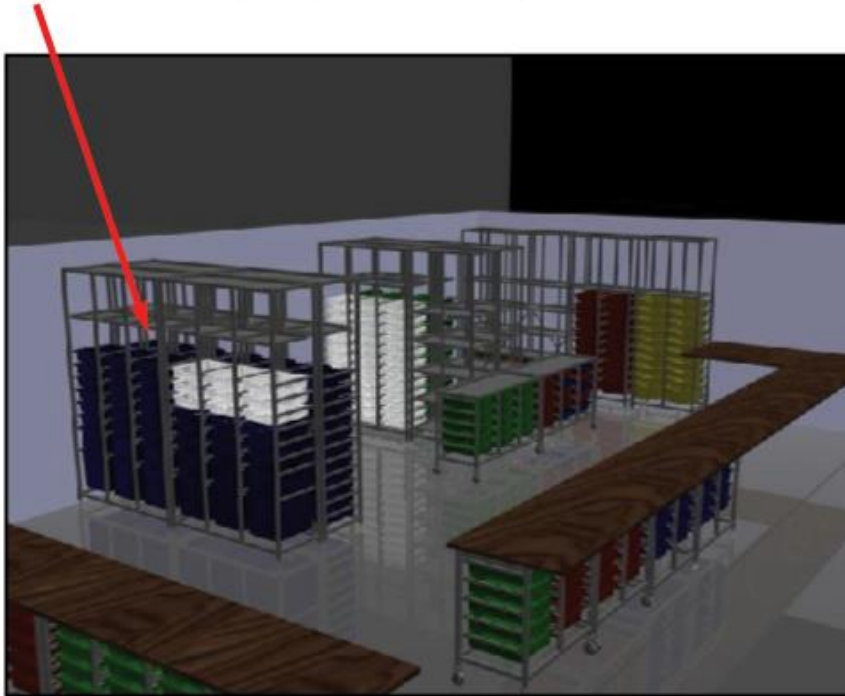
Prep Room – use of trays



Tower Hamlets College

Prep Room – height of storage

No trays above eyesight for safety reasons



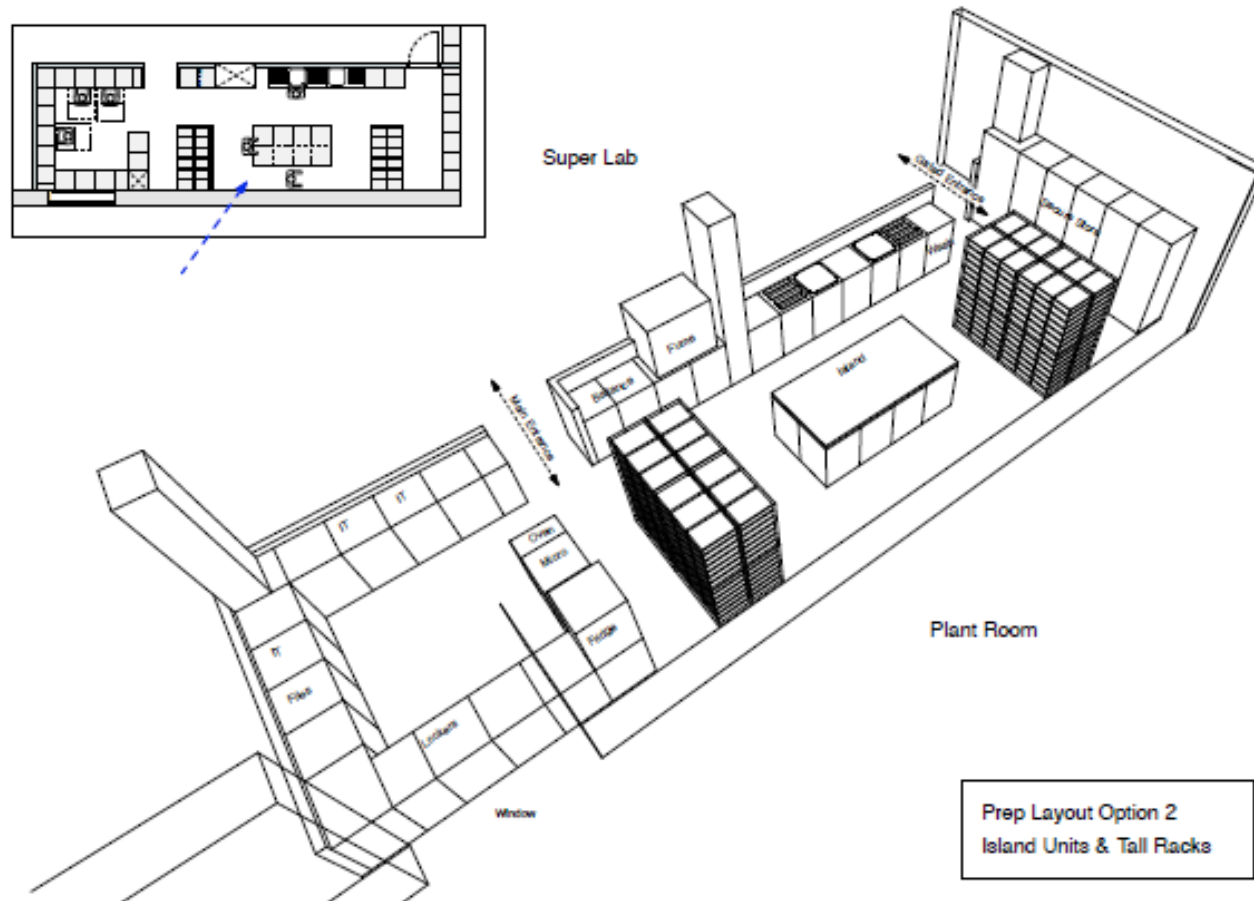
Gratnells

Prep Room – rolling storage



Gratnells

Superlab – Open Prep



Hayesfield