



PUTNEY
HIGH SCHOOL
GDST

PLANT GUIDE FOR SCHOOLS

The Biophilic Classroom

The Benefits of Nature in Learning Environments



“It’s not rocket science but we did get it from NASA”

LOW LIGHT



1a *Chrysalidocarpus lutescens* (Areca palm)

1b *Howea forsteriana* (Kentia palm)

Release moisture into the air and remove formaldehyde, xylene and toluene.



2a *Ficus elastica* 'Melany' (Rubber plant)

2b *Peperomia obtusifolia* (Baby rubber plant)

Remove chemical toxins from air.



3a *Dracaena* 'Janet Craig'

3b *Dracaena marginata* (Dragon tree)

Effective air cleaners removing xylene and trichloroethylene.



4a *Epipremnum aureum* (Marble queen, Golden pothos, Devil's ivy)

4b *Philodendron oxycardium*

(Heart-leaf philodendron)

Remove chemical vapours.



5a *Chamaedorea elegans* (Dwarf palm)

5b *Zamioculcas zamiifolia* (Eternity plant)

Produce oxygen and reduce carbon dioxide at night.

MORE PLANTS THAT BRING DELIGHT FOR BRIGHT AND DIRECT LIGHT

Cereus peruvianus ('Florida' cactus)

Haworthia (White spider)

Senecio cephalophorus (Mountain fire)

Crassula ovata (Friendship tree, Jade plant)

Crassula (Buddha's temple)

Tillandsia (Air plant varieties)

***Echeveria* 'Doris Taylor'** (Woolly rose)

Echeveria (Purple pearl)

Echeveria agavoides

***Echeveria shaviana* 'Truffles'**

Putney High School's plant selections are all taken from a NASA study based on guidance set out by Dr B C Wolverton in his publication *How to Grow Fresh Air*.

The plants were chosen on the basis of:

- ✿ Removal of chemical vapours
- ✿ Resistance to insect infestation
- ✿ Ease of growth and maintenance
- ✿ Transpiration rate

TOP LOW MAINTENANCE PLANTS WHICH THRIVE IN LEARNING ENVIRONMENTS

BRIGHT LIGHT

6a *Anthurium andraeanum* (Flamingo flower)

6b *Sansevieria trifasciata* (Snake plant)

Remove formaldehyde, xylene, toluene and ammonia. The flowers are a visual highlight.

7a *Aloe mitriformis* (Mitre aloe)

7b *Phalaenopsis sp.* (Moth orchid)

Effective in removing xylene from the air.

8a *Chlorophytum comosum* (Spider plant)

8b *Asplenium antiquum* (Japanese bird's nest fern)

Improve indoor air quality.

9a *Rhipsalis baccifera* (Oasis mistletoe cactus)

9b *Tradescantia zebrina* (Inch plant)

Improve indoor air quality.

10a *Pilea peperomioides* (Chinese money plant)

10b *Calathea ornata* (Prayer plant)

Improve indoor air quality.



PLANTS AND CARE

The selected plants enjoy fortnightly watering, and daily misting helps improve humidity which creates a fresher learning environment.

Allow one plant per 6 cubic metres.

“Putney High School’s ‘Breathe’ campaign shows how a few simple steps can have a significant impact on both wellbeing and the ability to learn well.”

Suzie Longstaff HEADMISTRESS

Indoor horticulture and external natural landscaping are **sustainable improvements** that can really make a difference. Even **images of nature**, along with subtle Biophilic Design principles, can refresh learning environments to bring **restorative benefits**, reduce stress, and improve focus.

Clare Bowman

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SUSTAINABLE SOURCES

- ✿ Landscape photography www.matthewcattellphotography.com
- ✿ Mural printing and installation www.promoteyourschool.co.uk
- ✿ Zero carbon carpet ‘Human Connection’ www.interface.com
- ✿ Adaptable bamboo furniture system ‘Calvert’ made in Cheshire www.sixteen3.co.uk
- ✿ Natural moss hand crafted in Cheshire and workshops www.innerspacecheshire.co.uk
- ✿ Biodegradable, 100% bamboo husk plant pots designed by Joe Hepworth and made in West Sussex www.madewithhusk.co.uk
- ✿ Hemp and flax woven British fabric www.camirafabrics.com
- ✿ Plants grown in Holland by Nieuwkoop, selection and guidance The Palm Centre, Richmond www.palmcentre.co.uk
- ✿ Cacti and succulents grown in Surrey www.ottershawcacti.com
- ✿ Air plants grown in Cornwall www.andysairplants.co.uk
- ✿ Wooden plant markers www.sophiavictoriajoy.com
- ✿ Botanical terrariums and workshops in London www.botanicalboys.com
- ✿ Eden Project ‘Canopy Closed Garden’ 100% recycled and handmade glass range created by www.lsa-international.com