

A45 Assessing greenhouses/polytunnels



It's important to check a greenhouse or polytunnel - both after installing a new model and using an inherited structure. This activity helps you check the safety of structures and prepare your Risk Assessment. This is also an opportunity to fix any problems and learn how to make the most from your greenhouse or polytunnel. This activity has assessment criteria for typical structures.

Resources

Clipboard and pen

Activity

- 1 Use the assessment criteria on the next page to review a new or inherited greenhouse or polytunnel.
- 2 Discuss the conclusions with the group. Develop and implement an improvement plan if required.
- 3 Complete a Risk Assessment (see A5 and T4).



Plastic bottle greenhouse made by pupils.

Top tip



Safe greenhouse glazing and polytunnel covers

Choose 'toughened' horticultural glass; also known as 'safety' glass. This is twice as expensive than standard glass, but considerably and remarkably strong. If it does break, it shatters into many small pieces rather than more dangerous shards. Glass is long lasting, insulates well and has excellent long term light transmission. There are also plastic sheets available; usually twin skinned 'polycarbonate'. This is often more expensive than glass and may discolour/degrade overtime, but is unbreakable and therefore safer.

Choose polythene carefully; each has different properties, such as condensation reduction, varying light transmission to control growth, temperature control film, extra tough, double skins, disease prevention, etc. The reference numbers on polythene refer to the weight in grams per square metre, eg 720 gauge. The higher the number, the thicker and longer lasting the plastic will be. Seek advice from manufacturers and weigh up costs/benefit and lifespan.

Health & Safety

Be careful during assessment, especially if unsure of the structural stability and there are damaged sections. Seek advice from the school's site manager.

See also *Health and Safety Guidelines (Section SG1.2)*

Further information

A5 Risk assessment

A46 Installing a water butt

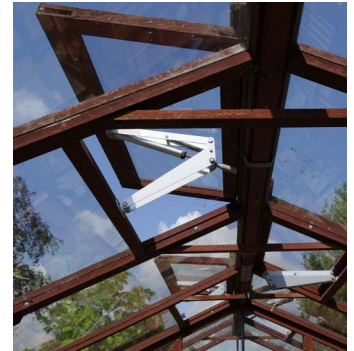
S4.9 Using greenhouses/polytunnels

Making bottle greenhouse www.reapscotland.org.uk/reports/greenhouse%20v1.pdf

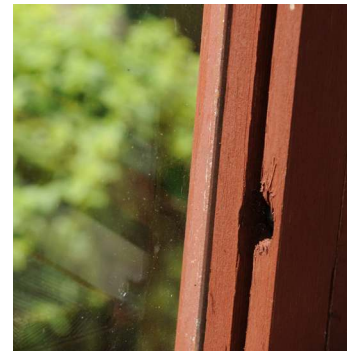
Instructions for assessing greenhouses/polytunnel

Greenhouses (inherited/new installation)

1 Framework Should be in good condition; not warped, damaged or rotting. The 'eaves' height (at base of roof) affects headroom so ensure this is tall enough. Aluminium or galvanised steel frames are cheaper with less maintenance and lighter to construct than wooden frames.



2 Glazing Glass should be clean, unbroken, well fitting; likewise with plastic sheets. Ensure clips are secure and none are missing.



3 Door

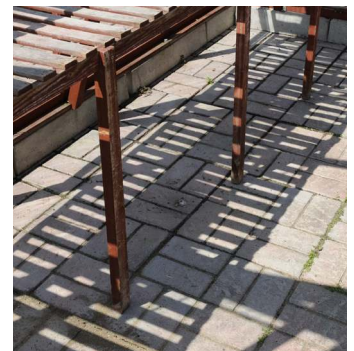
- Will either slide or hinge.
- Should be wide enough for easy access, including wheelbarrows/ wheelchairs.
- Lockable if required.
- Smooth mechanism for easy and reliable operation.



4 Greenhouse base Should be a solid and level foundation for the greenhouse frame. Buy bases designed to fit frames or make your own from bricks or concrete blocks bedded on cement.



5 Flooring Should be non-slip and easy to clean, eg paving slabs, gravel, tough woven groundcover fabric, tarmac/ concrete, etc. Arrange paths according to growing needs, eg central path between two borders.



6 Vents

Should be enough vents for good air flow and temperature control - both critical for plant growth and pest and disease control. The vents supplied with new greenhouses are rarely adequate. The total ventilation area should cover one sixth of the floor area.

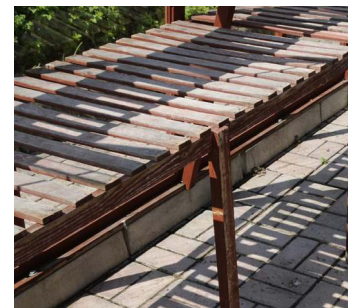
Use roof and side louvre vents. Automatic opening vents are cheap and make the daily commitment for opening and shutting vents easier.



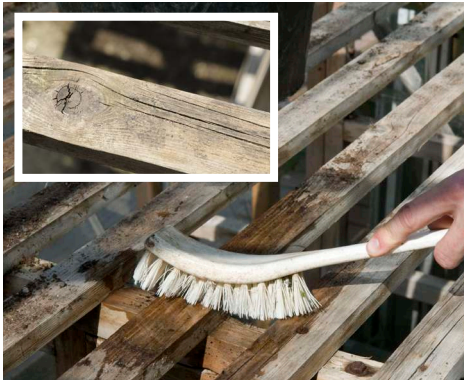
7 Water butts and benches

See A46 for how to install water butts to collect rainwater from gutters.

Invest in good benches if not using the borders for growing. These can be wooden or the easier maintenance aluminium models.



Maintenance tips



Dirty benches, floors, glazing, as well as weeds, can all harbour pests and diseases, especially over winter. Clear after working in structures and thoroughly once/twice a year. Use hot soapy water or organic disinfectant 'Citrox'.



Mend slipping glass. It's dangerous and lets draughts in and heat escape.



Replace broken glass. It's dangerous, especially in shards on cheaper glass.



Clean dirty gutters to prevent blockages and ensure cleaner water from water butts.

Polytunnel (inherited/new installation)

- 1 Steel framework** Should be in good condition and any connecting joints with horizontal bars secure. This is important for stability and safety. Bars are usually secured in concrete footings every 1-3m depending on the structure.
- 2 Polythene**
 - Should be in good condition. If torn, high winds can completely strip the frame and ruin the plants inside.
 - Should be clean for maximum light transmission and well secured along the sides.
- 3 Anti hot spot tape** Steel tubes touching polythene should have special self adhesive tape from manufacturers. This protects against abrasion and heat, prolonging the life of the polythene. Check this tape is delivered with new tunnels. Buy new tape to cover old tape when replacing polythene.
- 4 Doors**
 - Should be wide enough for easy access, including wheelbarrows/ wheelchairs.
 - Frames should be solid without rotten wood and polythene/net well secured around frame edges.
 - Doors should close tightly to conserve heat and for wind protection.
- 5 Ventilation** If present, roll up/down ventilation should work smoothly and close tightly, with netting and polythene in good condition. If vents are not present, ensure door/s are opened during hot weather and closed at night to keep animals out.

