



Seasonal Colour Garden

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**Suggested age
5-6 years**

Early Stage 1 (NSW)
Suite 1/Level 1 (QLD)
Level 1 (VIC)
Standard 1 (SA/TAS)
Early Childhood (ACT)
Early Childhood (WA)
KGP3 (NT)

Seasonal colour garden

Seasonal Colour Garden

A garden filled with colour is one of the great rewards for getting your hands dirty. Flowers and foliage colours change daily as the sun moves, and as the light changes with the seasons so do the colours of the garden.

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Student outcomes

By creating this Seasonal Colour Garden and participating in the learning opportunities, students will:

- investigate their surroundings by observing, questioning and reporting.
- gather, classify, record and analyse information about the environment.
- recognise that the sun, air, water and soil are essential to life.
- develop and evaluate ideas using drawings, models, prototypes and examples at appropriate stages of the design process, then implement them.
- create or modify their immediate environment to suit the needs of users.
- gain some practical understanding of the life cycles of plants.
- identify and describe ways in which living things grow and change.
- experience the concept of working hard and achieving a delayed result.
- develop positive attitudes and exhibit responsible behaviour toward caring for the natural and built environment.

KidsGrow resources

- *Steps for creating a Seasonal Colour Garden*
- *Seasonal Colour Garden sample design*
- *Seasonal Colour Garden tips and plant suggestions*
- *Seasonal Colour Garden yearly planner*
- *Planting guide for winter/spring flowering annuals*

Other resources from www.kidsgrow.com.au

- *Safety tips for learning outdoors*
- *School friendly gardening practices*
- *Safe ways to deal with common garden pests*
- *Raised bed design and construction*
- *No-dig gardening and garden tools*
- *Waterwise gardening*

Composting. Compost will enrich your garden and make it grow. Composting is nature's way of recycling. Almost any organic matter can be composted including leaves, straw, food scraps, lawn and garden clippings. You can build your own from timber, bricks or other materials or just make a heap. For fact sheets go to www.abc.net.au/gardening and type in 'compost' in the SEARCH box.

Be Wise About Water. With simple planning and good plant selection you can create a beautiful water efficient garden right from the start. Check out www.wiseaboutwater.com.au for detailed tips on reducing water use and links to other useful websites.

Your local nursery or garden centre is a great place to start for advice on gardening techniques, garden supplies, landscape suppliers and plants suitable for your area.

NGIA thanks Learnscapes Planning & Design for sharing their process in the creation of this themed garden. While every effort is made to ensure the accuracy of the contents, Nursery & Garden Industry Australia Limited accepts no liability for the information.

Safety Disclaimer. All student activities included in KidsGrow have been designed to minimise hazards. However, there is no guarantee expressed or implied that an activity or procedure will not cause injury. Teachers selecting a KidsGrow garden activity should consider the occupational health and safety requirements within their State or Territory. Any necessary precaution should be clearly outlined by the teacher before starting an activity. Students must also be taught the proper use of tools and provided with all safety and protective equipment such as gloves before beginning an activity. See 'Safety tips for learning outdoors'.



Steps for creating a Colour Garden

ACTIVITIES TO BE UNDERTAKEN

STUDENT LEARNING OPPORTUNITIES

Step 1. Organise your team and create a vision for your garden

Decide on the purpose of the garden. Research and choose the type of Colour Garden you want. Mass planting of the one variety is most effective. Planting closer together also means less weeding. For a smaller garden, use fewer colours. Enlist the support of parents, grounds staff and a local gardening expert for your garden team. Research which plants will best suit your purpose. Refer to the 'Seasonal Colour Garden yearly planner'. Research other elements needed for the garden. Gather garden ideas, wishes and dreams.

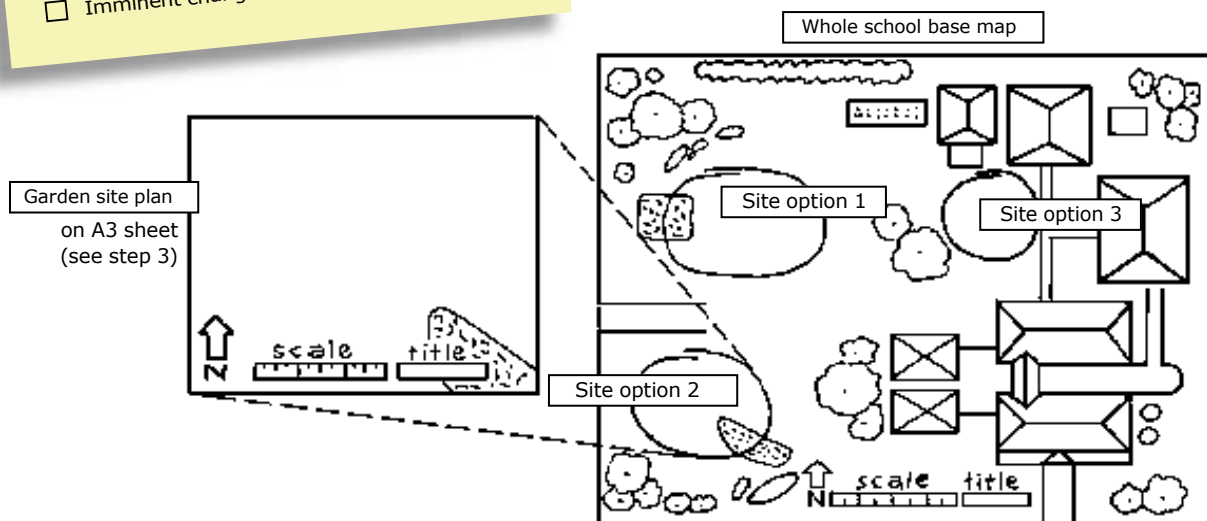
Investigate in small groups where different colours occur in the school grounds. **Match** to coloured swatches from a paint shop. **Record** class findings. **Classify** according to living and non-living. **Assess** results and discuss reasons for creating a Colour Garden. **Brainstorm** about who could help design and build the garden. **Design** an invitation and **distribute** it to possible helpers. **Identify** and **list** the elements needed to make the garden. **Collect** and **display** photos and drawings of other Colour Gardens. **Create** a wish list for what you want and need in your garden. **Brainstorm** fundraising ideas for your garden. **Act** on these.

Step 2. Locate the best place for the garden

Finding a suitable location will take some time and thought. It is very important at this stage to undertake a site assessment. Consider:

- Location of buildings and physical features
- Location of water, electric, gas, phone lines
- Existing vegetation including weeds
- Existing animals and evidence of habitat
- Sunlight and shade at different times
- Soil quality and type
- Prevailing winds and climatic influences
- Slope and drainage run-off patterns
- Current functions of areas and supervision
- Vehicle/pedestrian movements and safety
- Views and visual quality
- Hazards and maintenance issues
- Environmentally degraded areas
- Imminent changes affecting the site

Obtain a base map of the existing school grounds and if possible an aerial photograph. **Identify** main features and different areas. **Investigate** the grounds to look for potential Colour Garden sites, which could include existing garden beds or unused spaces. **Find** places for an annuals garden that: have at least six hours sunshine a day; are close to a water supply; are not already native animal habitat; are protected from strong winds; are fairly flat; are not needed for other uses now and in the future; are not needed for vehicle access; are not as likely for the garden to be damaged. **Choose** areas in the school grounds that may need improving. **Record** possible Colour Garden sites on the base map. **Collect** soil samples from the different sites to be tested. **Share** findings with key stakeholders and the school principal. **Evaluate** alternative sites for the Colour Garden using the information collected in the site inventory and **discuss** together. Go to each site. **Imagine** what it could look like with a Colour Garden. **Select** the best site for your garden. **Vote** if you need to.





ACTIVITIES TO BE UNDERTAKEN

STUDENT LEARNING OPPORTUNITIES

Step 3. Create the garden design

Now decide on the size and shape of the garden. Design garden beds so students can easily reach to plant and tend the garden, no wider than 1.5m. Consider either a big garden bed with numerous keyhole accesses or linked shaped gardens which can be constructed over a period of years. See the 'Seasonal Colour Garden sample design'. Try to incorporate seating in the garden edges. See the 'Raised bed design and construction' tips. Walkways should be wide to provide easy access. Draw the final design to scale onto a garden site plan.

Estimate then **measure** the possible size of the Colour Garden. **Create** a site map for the Colour Garden area as it is currently. **Discuss** possible shapes for the new garden beds and pathways. **Select** items from the wish list to be included in the design. **Discuss** which materials to use to make the garden and pathways. **Draw** pictures and plans of what the garden may look like. **Share and compare** drawings and ideas with the whole group. **Choose** the most appealing ideas and **sketch** up a class design. **Decide** on what to plant and where. **Choose** the colours you want. See the 'Seasonal Colour Garden tips and plant suggestions'. **Display** the final design for feedback from the school community.

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Step 4. Lay out the garden

With a grounds person or parents' assistance lay out the garden design to scale on the site. Use planting instructions for selected plants to find out how far apart they should be planted. See the 'Planting guide for winter/spring flowering annuals'. Group plants by similar water needs.

Refer to the 'Seasonal Colour Garden yearly planner'. **Measure** and **mark out** the gardens using rope or pegs and string. **Predict** and then **estimate** how many plants will be needed. **Calculate** the cost of buying plants and the cost of materials. **Invite** supporters to sponsor plants or materials for the project. **Photograph** 'before the garden'. **Write** captions for the photos. **Conduct** a symbolic launch on site. Keep it simple.

Step 5. Build garden structures

Call on the support team to help build the garden. See what recycled materials are available before spending money on timber pathway materials. Before digging make sure where electricity and other services are located. Construct the raised garden beds first, perhaps starting with just one. Include measurement markings on the structure.

Plan a working bee day and **invite** helpers. **Propagate** some seeds of your chosen plants, if possible, to **observe** and **demonstrate** the process of how seeds (with soil, water and sunlight) grow into seedlings. In groups **build** models of your garden using assorted materials. **Photograph** 'garden construction'. **Write** captions for the photos. **Design** thankyou cards to give to your helpers and donors.

Step 6. Prepare the soil

Different plants like different soil types so it is a good idea to test your soil.
A pH test kit is inexpensive and available from your local retail nursery or garden centre.

Soil preparation is the key to gardening success. Most plants like a slightly acid soil. The ideal pH for most plants is 6-7. After testing seek advice. Adding lime lowers the pH and adding sulphur raises it. It is important that the soil retains moisture. In an established bed first remove any coarse mulch, roots and stones. Dig well rotted compost and old manure into the top 15cm of soil. Rake the surface over. Consider installing a micro-irrigation watering system. Check on local council and water authority regulations first.

Investigate safe gardening practices. See 'Safety tips for learning outdoors' and 'School friendly gardening practices'. **Check** your soil type. Pick up a handful of moist soil and squeeze. Clay soil will form a tight sticky ball. Sandy soil won't hold its shape and loamy soil will hold its shape but it crumbles easily. **Test** the pH level of a soil sample using a soil testing kit. **Loosen** and **aerate** the soil to help the roots of plants grow well. **Add** organic matter to provide nutrients and assist with drainage. **Photograph** 'soil preparation'. **Write** captions for the photos. **Order** the seedlings you will require at the local nursery. **Organise** your planting day.

Step 7. Plant the garden

Avoid planting in full sun on a hot day. Space the pots out first in the garden. Read the label for advice - about 15-20cm apart suits most plants. Adjust their position for even coverage. Use a trowel to dig a hole twice the size of the root ball. Gently remove the watered seedling from the pot. Place it in the hole and then fill in with soil. Firm in the plant by hand to remove air pockets. Water plants in well with a fine, gentle sprinkling. Use a watering can to avoid over-watering and hoses damaging plants. Water lightly for two weeks before mulching.

Remove any weeds. **Rake** the soil surface so it is loose and flat. **Read** the planting directions on your plants. **Follow** instructions. **Devise** a way of using your hands to measure the distance you need to leave between each plant and set them out in the garden. **Assess** the plant coverage and **amend** using a ruler if necessary. **Observe** carefully a demonstration of how to plant seedlings. **Restate** the instructions to a partner. **Confirm** understanding. **Work** with your partner to each **plant** your seedling. **Make a judgement** as to whether it is correctly done. **Check** with an adult. **Photograph** 'planting the garden'. **Write** captions for the photos. **Draw** and **write** about your experience. **Display** your account.



ACTIVITIES TO BE UNDERTAKEN

STUDENT LEARNING OPPORTUNITIES

Step 8. Tend the garden

Spread mulch carefully between the plants – not too close to the stems to avoid them rotting. Keep seedlings just moist. Check daily. See the 'Waterwise gardening' page. Remove any weeds using a hand fork or a hoe. During the growing period seaweed-based solution and a soluble plant food can be applied. Remove old flower heads to extend the display period. Record each student's time prediction.

List the jobs that need to be done to maintain the garden. **Devise** a roster to ensure all students can share the garden jobs. **Measure** the growth rate of the plants each week and **record** on a class graph. **Illustrate** the different rates between species. **Study** the lifecycle of a plant from seed to mature adult. **Photograph** the 'garden in flower'. **Write** captions for the photos. **Depict** the garden by painting and drawing. **Represent** the colours as accurately as possible. **Write** about how it makes you feel. **Predict** how long the plants will flower for. **Count** the days.

Step 9. Celebrate and share the garden

Prepare student made signage for the garden. Most simply it can be painted on ply and coated with a clear lacquer to be replaced each year. Document the development of your garden. Plan a 'Full Bloom' celebration. Include a portrayal by the students of the garden in all of its stages. Thank all helpers with appreciation certificates. Prepare a brief project report with photos.

Create a special sign for your garden. **Acknowledge** sponsors. **Prepare** a display about the garden. Include photos and captions, paintings, growth rate graph and also student reflections. **Invite** family and community to **celebrate** the Colour Garden in full bloom. **Design** a special invitation for your local nursery. **Devise** a dramatic or musical re-enactment of the creation of the garden to **perform** at the 'Full Bloom' celebration assembly. **Send** photos to the local newspaper and www.kidsgrow.com.au.

Step 10. Keep your garden going

Collect and store seeds for the next year if applicable. Add any undiseased dead plants to the compost. Cover the garden bed with a thick layer of newspapers, wet them down and cover with mulch or straw to help prevent weed growth over summer. Adjust and maintain the irrigation system.

Support grounds staff by **mulching** and **maintaining** the garden. **Prepare** a presentation to assist next year's Kindergarten/Prep students to plan and plant their own Colour Garden. **Make** a class Colour Garden Big Book for the school library using the photos, graphs, selected paintings and reflections.

For Further Fun

- Experiment with different pots and containers to make personalised gardens for gifts.
- The cheapest way to grow annuals is to buy packaged seed. The more robustly growing types (e.g. alyssum, marigolds and sunflowers) can be sown directly into a prepared garden bed on a still day. First mix the seed thoroughly into a bucket of potting mix so it's easier to scatter.
- Germinating seeds and growing seedlings under the controlled conditions of a glasshouse, shade house or window-sill avoids some of the variables outdoor conditions at the seedlings most tender time of life.
- Explore whether to plant annuals or perennials. See the 'Seasonal Colour Garden tips and plant suggestions' for more information.
- Research and plant a rainbow coloured garden.
- Seek advice from your local nursery about colourful flowers for shady spots and Australian native annuals including *Bracteantha spp.* (everlasting daisy).

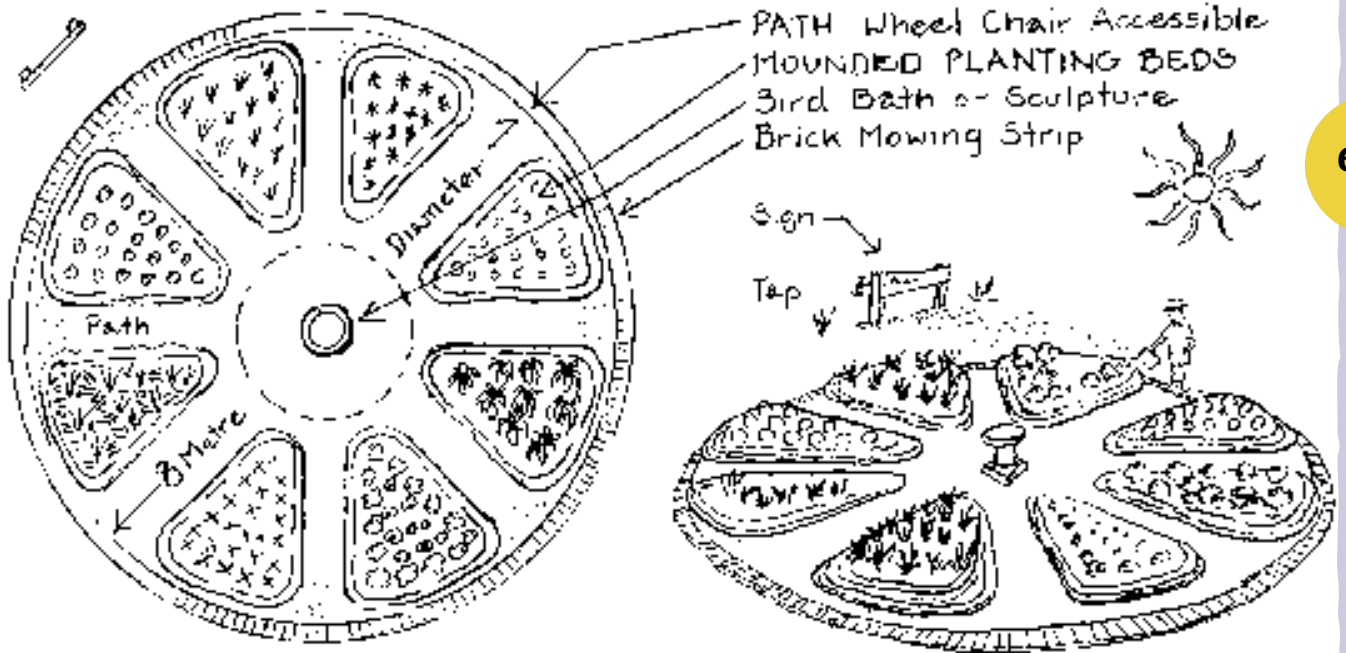
Useful websites

For plant selection and design ideas: www.beddingplants.com.au, www.ngia.com.au, www.bhg.com.au, www.explore.cornell.edu/scene.cfm?scene=home%20gardening (N.B. this is an American site with northern hemisphere plants and seasons)



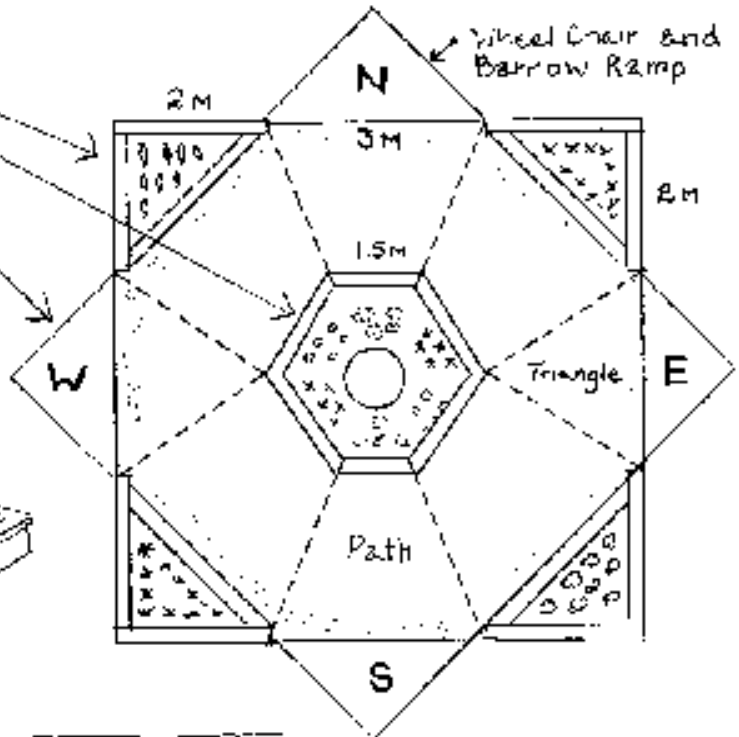
Seasonal Colour Garden sample design

PLAN 1. (1cm = 1 metre onsite) BASIC MOUNDED GARDEN



PLAN 2.

- Corner Planter Box
- Hexagonal Planter Box
- Bird-bath or Sculpture
- MOSAIC ENTRANCES PAD



6 hours Sunshine	Water Source	Rich Loamy Soil	Mud	Autumn and Winter Planted Annuals	
Raised Bed	Seating	Gravel Path	Bird Bath	Timber Sign	Mowing Strip

Learnsapes Planning and Design
John Webber and Helen Tyas Tunggal



Seasonal Colour Garden tips and plant suggestions



Ask your local garden centre for expert advice on seeds and seedlings suited to your school grounds

Essential elements

- Most annuals need at least 6 hours of sunlight each day.
- Mounded or raised garden beds provide better drainage and discourage foot traffic.
- Good soil is the key to healthy plants. Rich loamy soil is the best for annuals.
- Give seedlings a good soak before planting and keep the water up during the growing season.

Design Tips

- Big groups of single colours create greater impact.
- Plant "hot" colours such as red, orange and yellow to create drama.
- Pastel colours such as violet, white and pale pink create soft, more relaxing colour schemes.
- Perennial plants provide foliage for most of the year. Consider planting them for garden borders.

Gardening tips

- Mulch to reduce watering needs by up to 70%. Mulch also discourages weed growth.
- Use watering cans and two litre plastic containers to avoid hose damage to plants when watering.
- Liquid fertilise every two to three weeks to encourage good growth and flowering.
- Remove spent blooms regularly to promote continued flower growth.
- Keep an eye out for early signs of insect pests or disease. See 'Safe ways to deal with common garden pests'.

Suggested plant list for annuals planted in autumn to flower in winter and spring

	Red	Pink	Orange	Yellow	Green	Blue	Purple	White
pansy	*		*	*		*	*	*
polyanthus	*	*	*	*		*	*	*
poppy	*	*	*	*				
snapdragon^	*	*	*	*			*	*
nemesia	*		*	*				
stock	*	*					*	*
salvia^	*					*		*
portulacca^	*	*		*			*	*
petunia^	*	*				*	*	*
viola		*	*	*		*	*	*
lobelia		*				*	*	*
cineraria		*				*	*	*
alyssum		*					*	*
dianthus		*						
paper daisies		*		*				*
calendula			*					
marigold^			*	*				
parsley					*			
herbs					*			
cornflower						*	*	*
gomphrena^							*	

^ In autumn/winter these annuals are best for tropical and subtropical regions only

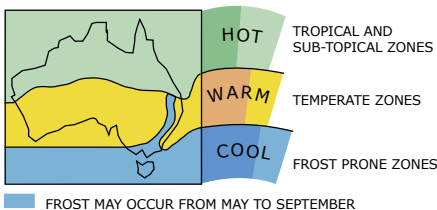
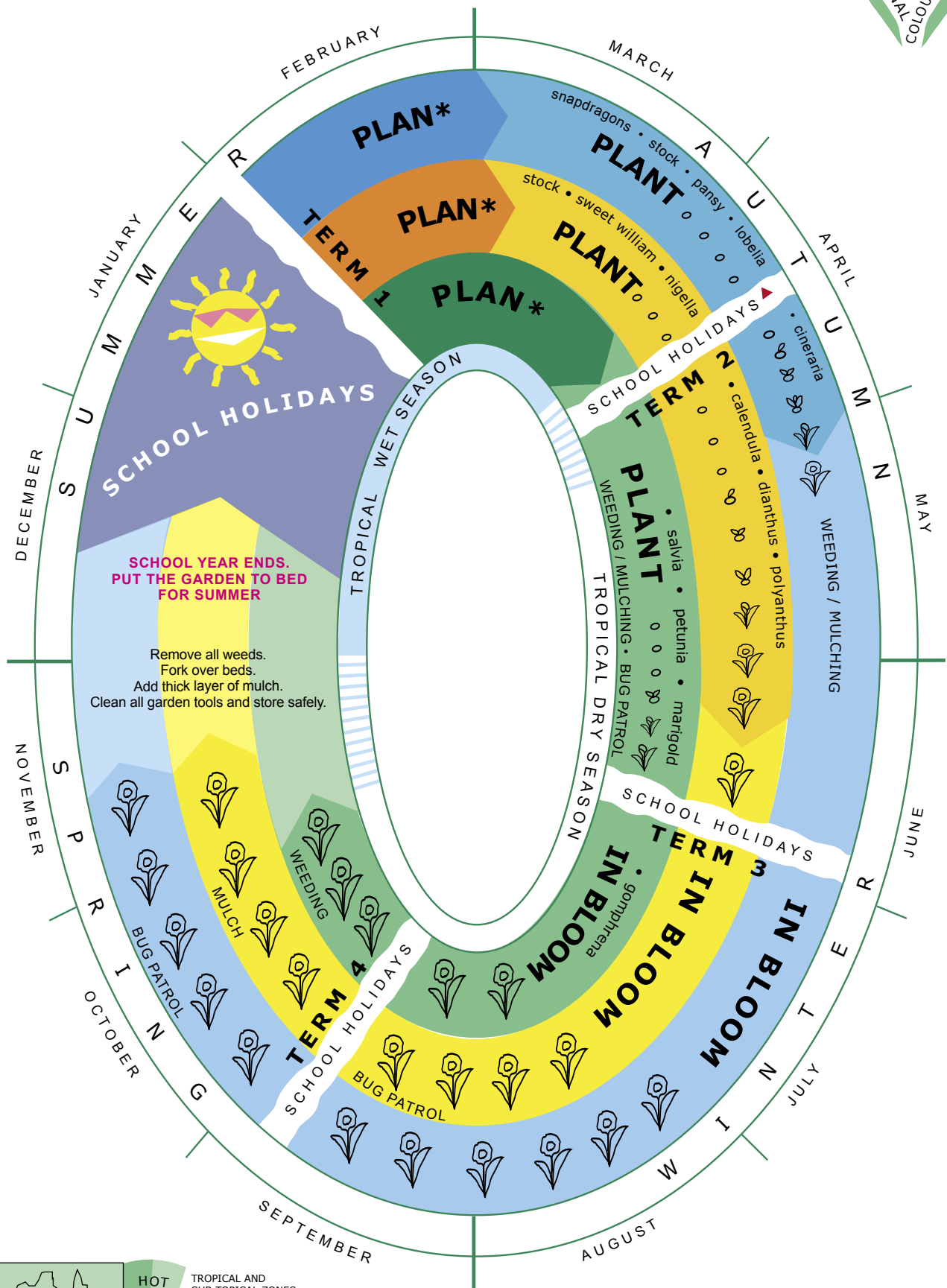
Should you grow annuals or perennials?

Annuals	Perennials
<ul style="list-style-type: none"> • quick and easy source of colour • live for one season • must be replaced each autumn (or late spring)# • bloom through winter and spring (or summer and autumn) • have compact root systems • adapt well to small containers 	<ul style="list-style-type: none"> • renewable source of colour • live for two or more years • re-sprout each spring from roots • peak bloom lasts a few weeks • have more extensive root system • need dividing every few years • great for annual garden borders

Autumn planted annuals are suggested for schools because their flowering season falls within the school year.



Seasonal Colour Garden yearly planner



* Planning a new garden may take 6 months or more. Start the year before.

▲ Note that school holiday periods change from year to year and state to state. Tasmania has 3 terms rather than 4.



Planting guide for winter/spring flowering annuals

Different flowers prefer different climates, and grow at different times of the year. Your local retail nursery or garden centre can help you choose annuals to suit your local conditions. The following are flowers that should reach their peak within the school year.

Flower	Feb	Mar	Apr	May	Jun	Jul	Aug	Spacing	Time to flower from seed	Height	Special note
Alyssum	c w t	c w t	c w t	w t	t	t	t	15cm	5-8 weeks	8cm	Prefer full sun. Flowers all year in most climates.
Cineraria	c w	c w	c w t	w t	t			30-35cm	15-20 weeks	30-45cm	Frost tender and prefers semi shade.
Lobelia	c w	c w t	c w t	w t	t	t	t	10-15cm	11-14 weeks	15cm	Shelter from winds and hot sun.
Pansy	c w	c w	c w t	w t				15cm	12-16 weeks	15cm	Bi-ennials. Mulch well.
Iceland poppy	c w	c w	c w t	w t	t			20cm	17-24 weeks	30-50cm	Mulch well. Not for hot climates.
Polyanthus	c w	c w t	c w t	t				20cm	22-24 weeks	30cm	Not for hot climates. OK in dappled sun.
Stock	c w	c w	c w t	w t				20-30cm	17-20 weeks	50-60cm	Not for hot climates. OK in dappled sun. Fragrant.
Viola	c w	c w	c w t	w t	t			20cm	11-16 weeks	60cm	Flowers for long periods. Mulch well.
Cornflower	c w	c w	c w t	w t	t			40-50cm	11-14 weeks	60cm	Prefers morning sun.
Paper daisies	c w	c w t	c w t	c w t	t			20-30cm	16 weeks	30-40cm	Will tolerate dry soil. Needs sunny spot.
Dianthus	c w	c w t	c w t	w t	w t	w t	w t	15-30cm	17-20 weeks	10-20cm	Tolerate dry soil. Long time to flower.
Calendula	c w	c w t	c w t	w t	t		t	30cm	9-10 weeks	30cm	Hardy and easy to grow.
Marigold	c w t	c w t	c w t	w t	t	t	t	20-40cm	10-14 weeks	20-40cm	Best for hot regions only in winter.
Nemesia		w t	w t	w t				15cm	13-14 weeks	20-40cm	Tall and dwarf varieties available.
Snapdragon		w	w t	w t	t	t	t	20cm	13-16 weeks	25-40cm	Prefer full sun. Choose fungus-resistant varieties.
Salvia^		t	t	t	t	t	t	20-40cm	10-12 weeks	30-60cm	Best for hot regions only in winter. Prefers moist soil.
Portulacca^				t	t	t	t	10cm	6 weeks	15-20cm	Best for hot regions only in winter. Don't overwater.
Petunia^			t	t	t	t	t	25-30cm	10-12 weeks	25-40cm	Best for hot regions only in winter.
Gomphrena^					t	t	t	30cm	12 weeks	30cm	Best for hot regions only in winter.

^ Only suitable for hot climates in winter.

source: Yates Garden Guide, 2002 Harper Collins Australia

