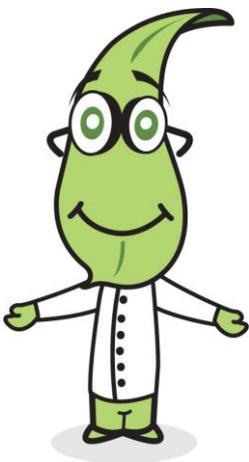


Spring Bulbs for Schools (2021/22) Teacher's Guide



2021 is the 16th anniversary of the **Spring Bulbs for Schools Investigation!** As usual, we are welcoming new schools to the investigation, whilst continuing to work with schools that have been involved since the beginning.

We continue to work in partnership with the **Edina Trust** who are funding the pots and bulbs and extending the reach of the project. This year we have 190 schools taking part!

Please find enclosed the very important Term Planner.

Follow Professor Plant on Twitter and follow updates on the bulb-blog.

Website: <http://www.museumwales.ac.uk/spring-bulbs/>

E-mail: scan@museumwales.ac.uk

Twitter: www.twitter.com/professor_plant

Project hashtags:

#BulbBuddies

#CyfeillionYGwanwyn

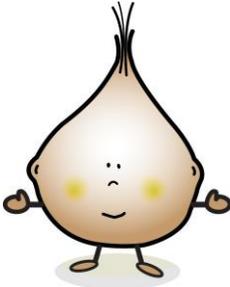
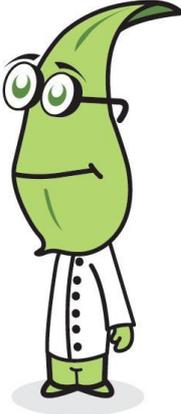


Term Planner: 2021/22

Here are the key dates for the project. Each stage has useful resources and PowerPoint files that you can use with your class.

Download from: <https://www.museumwales.ac.uk/spring-bulbs/>

Date	Activity
w/c 27 September	<ul style="list-style-type: none"> • Bulbs and pots to be delivered to all schools.
Week of 4 October	Getting started: <ul style="list-style-type: none"> • Introduce pupils to the project • Prepare for planting • Test username and password
20 October	Planting day <ul style="list-style-type: none"> • Remember to take photos for the competition!
27 October	Planting day for schools that were on holiday the previous week <ul style="list-style-type: none"> • Remember to take photos for the competition!
12 November	Deadline for photos to be entered to the Planting Day photo competition.
1 November	All schools to begin keeping weather records and continue until 1 April (entering 'no record' for days the school is closed).
January – March	Encourage pupils to visit their bulbs regularly to observe them grow. Note the flowering dates and heights of the plants and enter these to the Museum website. One school from each country will win a prize for the class. To be in for a chance of winning you must enter all weekly weather data and flowering dates by 1 April.
1 April	Deadline to send all individual flower records and school weather records to the website. This ensures that each pupil receives a Super Scientist certificate and pencil. If you enter all of your data you will be entered into a draw to win a prize for your class.
29 April	Competition winners to be announced and published on the website.
Week of 16 May	Certificates, pencils and seeds to be sent to awarded schools.
Week of 16 May	Nature-Activity trip for winning school in Wales to be arranged by this date for after half term.
Week of 13 June	Professor Plant's end of year report to be published on the website and shared with all schools.

Date	Activity details
<p>Bulb and pot delivery:</p> <p>All equipment to be delivered to schools by 1 October</p>	<p><u>Spring Bulbs for Schools Investigation pack</u></p> <p>Your Spring Bulbs for Schools Investigation pack will be delivered to your school by the date shown. Please remove the bulbs from the box and store them in a cool, dry place. The bulbs won't get enough air if they are left in the box.</p> <p>Your pack should contain:</p> <ul style="list-style-type: none"> • One daffodil bulb per pupil (Tenby Daffodil) • One crocus bulb per pupil (Whitewell Purple) • Mystery bulbs • One pot per pupil • A thermometer • A rain gauge • A gift voucher to purchase compost • A folder containing information on the project 
<p>Getting started:</p> <p>Week of 4 October</p>	<p><u>Introduce pupils to the project and prepare for planting</u></p> <ul style="list-style-type: none"> • Before planting, pupils will need to name and adopt their bulbs and make labels for their pots. This is a good time to discuss what a plant needs to grow and to decide where to position the bulbs outside in your school grounds. Please use the resources below. <p>Resources at: http://www.museumwales.ac.uk/spring-bulbs/</p> <ul style="list-style-type: none"> • A letter from Professor Plant • Adopting and Caring for your Bulbs • Make your own bulb label • Bulb adoption certificate <p>You will need to purchase general, peat free compost with your gift voucher before planting day.</p> <p>Test your username and password: Teachers will be e-mailed account details to use to enter data to the museum website. Please follow the instructions in the e-mail.</p> 

Planting day:

20 October: All schools

27 October: Any schools that were on holiday the previous week

Planting Day Competition:

Enter by 12 November

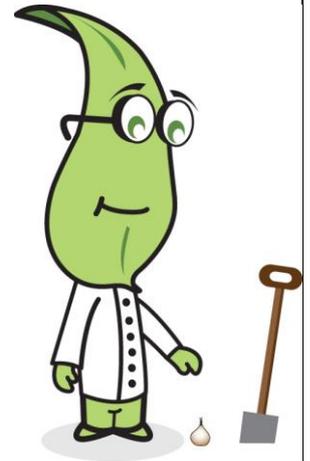
Schools to plant bulbs on the same date to ensure a fair-test

- Pupils will need to plant their bulbs and attach the label they have prepared to help them identify their pot. If you can't plant on this date please plant as close to this date as possible and make a note of the date. **You will need to have general, peat free compost ready for this activity.** No trowels or spades are necessary. Discuss safety rules with the class before planting.

Resources at:

<http://www.museumwales.ac.uk/spring-bulbs/>

- Planting your bulbs
- Make your own mini-origami booklet about the secret life of a bulb



Planting Day Competition

Share images of your class planting their bulbs to enter the planting day competition. You can be as creative with these as you like. Please share them via Twitter or email.

Schools taking part in the Edina Trust extension project can share their images via Twitter by tagging @EdinaTrust or by emailing samanthamoore@edinatrust.org.uk

Schools in Wales can send their photos to Amgueddfa Cymru - National Museum Wales via Twitter by tagging @Professor_Plant or by emailing: scan@musuemwales.ac.uk



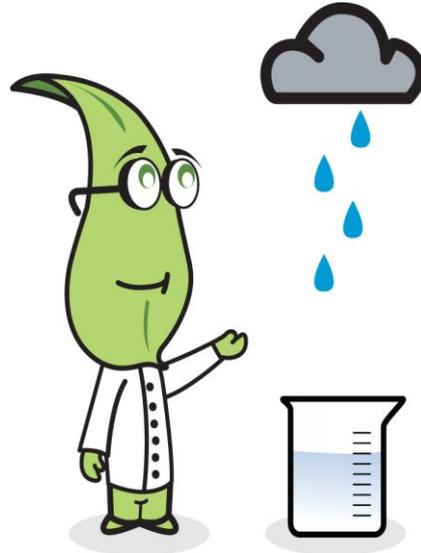
- Send your stories and pictures to our bulb-blog and follow Professor Plant on Twitter! www.twitter.com/Professor_Plant

Project hashtags 2021/22: #BulbBuddies #CyfeillionYGwanwyn

Keeping weather records:

Begin: 1 November

Continue until:
1 April (entering 'no record' for days school is closed)



Begin keeping weather records

- Pupils will need to begin collecting information, using equipment and sending data via the website. Teachers will need to gather: rain gauge, thermometer, rulers, pencils, the weather chart and the class username and password (ready for logging into the website).
- If pupils enter data weekly then schools can compare weather records and study the map to identify local trends. Please send data weekly, on Friday afternoons if you can.
- Schools may also wish to study last year's records and findings.

Resources at: <http://www.museumwales.ac.uk/spring-bulbs/>

- Keeping weather records
- School weather chart
- My daffodil
- My crocus
- Map and weather charts
- Previous results

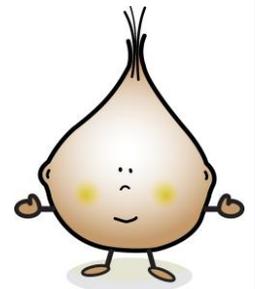
Keeping flower records:

January to March

Watch your plants grow

Encourage pupils to visit their bulbs regularly between January and March. Each pupil is asked to record the date their plant flowers and its height on that date to the museum website.

- Pupils are to **continue keeping weather records** as in previous term. Pupils can update Professor Plant on how their plants are doing by entering comments with their weekly weather data.
- Remember to send your stories and pictures to our bulb-blog and follow Professor Plant on Twitter!
www.twitter.com/Professor_Plant



Keeping flower records:

January to March

- **Mapping.** Pupils should be encouraged to look at the map on the museum website to see where plants are flowering first. They can also look at each schools weather data to see if this offers insight to why plants might have flowered earlier in some areas.
- **When and what to record.** Use the ‘**keeping flower records**’ PowerPoint to ensure that all pupils know how to tell when their plant has flowered. Ask pupils to log the flowering date and the height of the plant on that date to the Museum website. After entering the first flowering date a flower will appear above your school on the **flower map** and the date will appear on the **flower chart**. Ask each pupil to send in their records as flowers open, so that the website can calculate an average flowering date for your school. This can be used to compare trends. For more information on how to send in data see: <http://www.museumwales.ac.uk/spring-bulbs/>
- **While the bulbs grow.** This is a good time to discuss the potential implications of climate change and to put the importance of the investigation into context. There are resources relating to global warming on the website. Pupils can make energy saving pledges and discover how long they would need to run to power a light bulb.
- **When the flowers open.** Ask pupils to create a botanical drawing of their plants to highlight the structure and function of different parts of the plant. There are examples and resources to help label parts of the plant on the website. Pupils may take their daffodil home once it has flowered (at the teacher’s discretion). Please share the resource ‘bulb care after flowering’ with pupils at this point.
- **How to get certificates.** All schools that send in full records will receive **Super Scientist certificates, pencils and seeds**. Please make sure all weather and flowering records are sent to Professor Plant through the website by **1 April**.
- **If plants haven’t flowered.** Don’t worry if some plants haven’t flowered by 1 April. Please ask pupils to take their plants home with them for the holidays. Those whose plants haven’t flowered could be asked to enter the flowering date from home. **We require a flowering date for both the daffodil and crocus from each pupil**, so that our mapping system can calculate the average flowering dates for your school.
- **What to do next.** Please use the ‘bulb care after flowering’ resource on the website. At the end of the project please reuse, upcycle or recycle your plant pots. The plant pots are made from recycled plastic and are fully recyclable.
- **Certificates will be sent to awarded schools the week of 16 May.**

<p>Keeping flower records: January to March</p>	<p>Resources at : http://www.museumwales.ac.uk/spring-bulbs/</p> <ul style="list-style-type: none"> • Keeping flower records • Daffodil chart • Crocus chart • Bulb-blog • Name the daffodil flower parts • Name parts of a daffodil • Global warming: why should we care? (30 min discussion) • True or false: climate change Wales • The energy crisis (25 min debate) • Climate change: what's occurring • Bulb care - after flowering
<p>Win a Class Prize!</p>	<p><u>Keep weekly records for the chance to win a prize for your class!</u></p> <p>The Prize for schools in Wales is a nature activity trip for the class. This includes: A free coach and a day of facilitated nature activities for one class at your nearest Amgueddfa Cymru – National Museum Wales site.</p> <p>The Edina Trust will organise prizes for winning schools taking part in the Edina extension project.</p> <ul style="list-style-type: none"> • To be in for a chance of winning you must send your weekly weather records to the website by 1 April. The winners will be announced by 29 April. • All pupils that send in their records will receive Super Scientist certificates, pencils and seeds. These will be sent to awarded schools the week of 16 May.
<p>Professor Plant's end of year report will be published: Week of 13 June</p>	<p><u>Project Report</u></p> <p>Professor Plant's end of year report will be published on the website and shared with all schools. This provides an opportunity for pupils to present the project findings to the rest of the school / next year's participants.</p> <p>Resources at: http://www.museumwales.ac.uk/spring-bulbs/</p> <ul style="list-style-type: none"> • Certificates • The latest findings • Previous results