



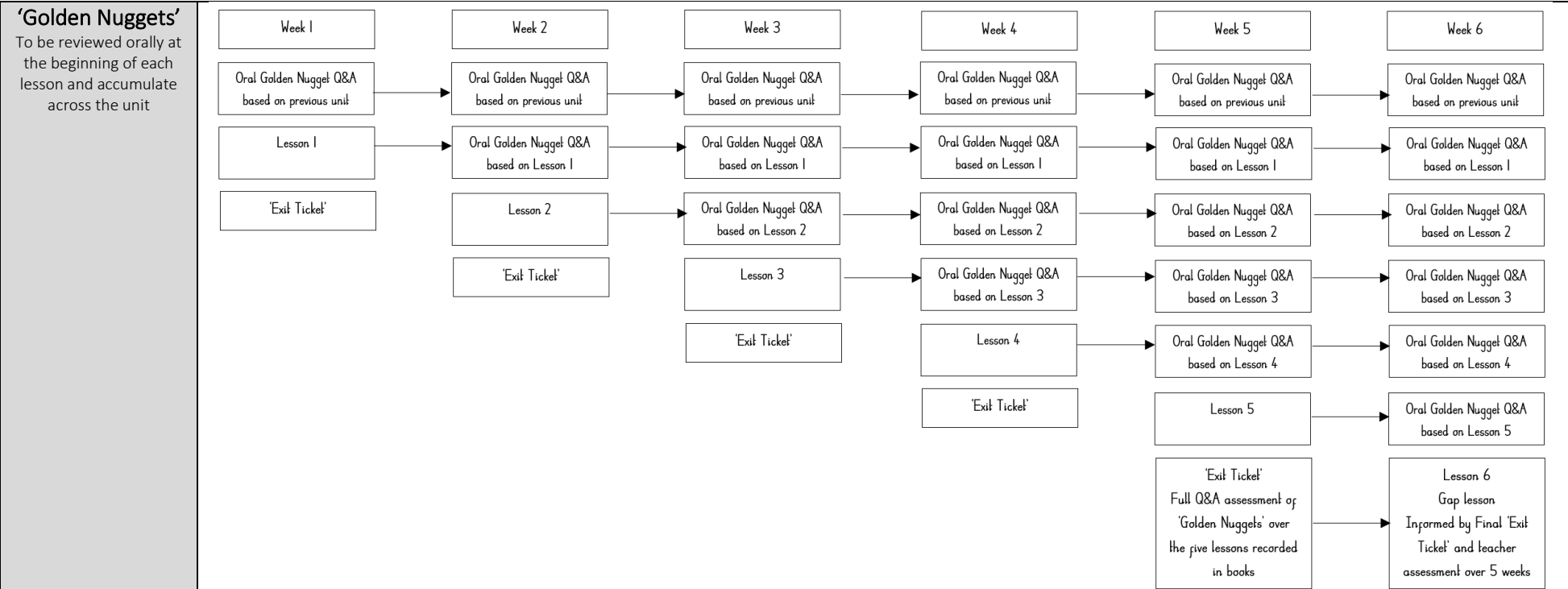




Netherton C of E Primary

Subject: Science – Seasonal Changes (2)

Year: 1	Big Question: What seasonal changes occur in spring and summer and why?
Context and curricular links	<p>Prior units and knowledge: Understand the key features of the life cycle of a plant and an animal (Nursery – Plants & Animals, excluding humans); Explore the natural world around them (Reception – Seasonal changes); Describe what they see, hear and feel whilst outside. (Reception – Seasonal changes); Understand the effect of changing seasons on the natural world around them (Reception – Seasonal changes). Children will also have learnt about seasonal changes in autumn and winter, during the autumn term.</p> <p>Future learning: Recognise that light from the sun can be dangerous and that there are ways to protect their eyes (Y3 - Light); Use the idea of the Earth’s rotation to explain day and night and the apparent movement of the Sun across the sky (Y5 - Earth and space); The seasons and the Earth’s tilt, day length at different times of year, in different hemispheres (KS3).</p>
School values, spirituality and school vision <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p style="font-size: small;">Our vision is for all children to believe</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  I am loved. </div> <div style="text-align: center;">  I am accepted. </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;">  I can grow. </div> <div style="text-align: center;">  I can do it. </div> </div> </div>	<p>Fairness: Each season having the same (fair) number of months.</p> <p>Acceptance: Accepting the changes that occur, knowing the seasons are a constant loop.</p> <p>Perseverance: Persevering through the cold, dark winter – hibernation.</p> <p>Respect: Respect for nature – admiring flowers without picking them.</p> <p>Forgiveness: Forgiving the weather for damage it can often cause – killing / damaging plants (farmers)</p> <p>Positivity: Looking for the positives in all seasons, despite everyone having a particular favourite.</p>
Key Milestones for the unit	<p>I can observe changes across the four seasons.</p> <p>I can observe and describe weather associated with the seasons and how day length varies.</p> <p>I can gather and record data to help in answering questions.</p> <p>I can use my observations and ideas to suggest answers to questions.</p> <p>I can observe closely, using simple equipment.</p>
Essential Information for Teachers	<p>Common Misconceptions:</p> <ul style="list-style-type: none"> • It always snows in winter • It is always sunny in the summer • There are only flowers in spring and summer • It rains most in the winter <p>If a sixth lesson is required, the children could use the Twinkl lesson in the resource folder which focuses on safety in the sun. They could make posters telling people how to protect themselves from the Sun’s rays. Alternatively, they could practice and perform a weather report for the coming week, based on what you can find out online.</p>



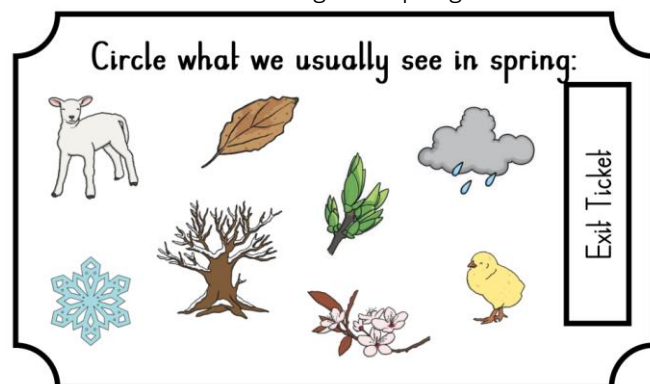
'Golden Nugget' based on previous unit	<p>What are the signs of autumn and winter? Autumn: red / yellow / orange / brown leaves; acorns and conkers; leaves falling from the trees onto the ground; crops being harvested; pumpkins; cooler nights; wind and rain; people wearing boots and rain jackets. Winter: people wearing woolly hats, gloves, jumpers, wellies, scarves and thick coats; frost, fog, ice, icicles and snow; bare trees; animals hibernate.</p>
'Golden Nugget' based on Lesson 1	<p>What changes occur in spring? New buds and leaves begin to grow on trees, bushes and plants; blossom grows on some trees; mornings are lighter, and the sun sets later; lambs and other baby animals are born; birds build nests, lay eggs and baby birds are born; flowers like daffodils, bluebells and crocuses grow; temperatures get milder, but we can have a lot of rain.</p>
'Golden Nugget' based on Lesson 2	<p>What is the weather usually like in spring? Temperatures rise in the day, but it is still often cool at nighttime. April often has rain showers followed by spells of sunshine.</p>
'Golden Nugget' based on Lesson 3	<p>What signs of spring can we observe? Buds, leaves or flowers developing; sunshine or rain; bird nests; butterflies, bees and other insects; people in rain coats or with umbrellas.</p>
'Golden Nugget' based on Lesson 4	<p>What changes occur in summer? Trees are in full leaf; we start to experience warmer, sunnier weather; spring flowers are replaced by summer flowers; you will start to see more butterflies, bees and wasps as the summer season approaches; the sun begins to rise before 6.30 am; people visit beaches and have barbecues; it can be warm during the evening and nighttime.</p>

'Golden Nugget' based on Lesson 5	<p>What is the weather usually like in summer?</p> <p>Summer is the hottest season of the year. Temperatures can stay warm even after the sun has set at night. Sometimes the hot weather can even result in thunderstorms. We must protect ourselves from the sun using things like sun hats, sun cream and sunglasses, clothing to keep us covered but cool, and we must drink lots of water to stay hydrated.</p>
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Week 1	Key Question for Lesson 1: What changes occur in spring?	Key Vocabulary
	<p>Key Milestone: Observe and describe how day length varies. Secondary Milestone: Observe changes across the four seasons.</p> <p>Useful Links: - https://www.youtube.com/watch?v=v8_43Bo7XF0 - https://www.bbc.co.uk/cbeebies/radio/peter-rabbit-tale-of-spring (30-min audiobook - could be used during wet play, an assembly slot, at the end of the day or put on Class Dojo)</p> <p>- The Four Seasons: Recap the names of the four seasons, then match the months with the season they are in. <i>Do you know what happens in these months?</i></p> <p>- Changing Seasons: Watch this video: http://www.bbc.co.uk/education/clips/zrjd7ty and ask children to put their hand up when they think it is spring. <i>Why did you think that part was spring? What changes do you notice as winter turns to spring?</i></p> <p>- Spring: Share read information about Spring (see PPT) and discuss some of the changes which happen in the spring. Watch https://www.youtube.com/watch?v=v8_43Bo7XF0 to find out more about spring.</p> <p>- Day Length: Look at the table. <i>What do you notice about the average number of hours of daylight during the spring? How many hours of daylight are there in spring? How do these compare with the numbers of hours of daylight in the winter?</i> (Look back at information from the autumn term's unit) If the days in the spring are longer then encourage children to think about what happens to the nights. <i>Do you know what happens to the nights in spring?</i></p> <p>- Changes around Us: Children use the differentiated 'Changes Around Us Activity Sheet' to record what the trees look like, and the clothes people wear in spring.</p> <p>- Spring Changes: <i>What have you noticed about spring? How have we dealt with the weather? What have we been wearing? Why? What is happening to some of the trees?</i> Comparisons could be made between their recorded work about autumn and winter.</p>	<ul style="list-style-type: none"> • season • autumn • winter • spring • summer • month • weather • day length • day • night <p style="text-align: center;">Evaluation</p>
Cross Curricular Links		
<p>English: Shared reading and the use of descriptive language to describe the season. Maths: Use of time words.</p>		

'Exit Ticket'

Children circle the usual signs of spring.



Week 2	Key Question for Lesson 2: What is the weather usually like in spring?	Key Vocabulary
	<p>Key Milestone: Observe and describe weather associated with the seasons.</p> <p>Secondary Milestone: Gather and record data to help in answering questions.</p> <p>Useful Links:</p> <ul style="list-style-type: none"> - https://www.bbc.co.uk/teach/class-clips-video/science-ks1-ks2-seasonal-changes-behaviour-animals-growth-cycle-plants/zfyvkv7 - https://www.youtube.com/watch?v=M9-GkbwCTkw <p>- Spring: Talk partners discuss their experiences of spring. Use prompt questions (see PPT).</p>	<ul style="list-style-type: none"> • cloudy • rain • sunshine • mild • temperature • millimetres (mm) • degrees Celsius (°C)
	<p>- Spring Photos: Look at the 'Spring Photos' and discuss them. Try and elicit what conditions the plants would need to grow and flower – link to previous plants unit. <i>What do plants need to grow? What is the weather usually like in spring? How might that affect plants?</i> Watch this video about plants in spring: https://www.youtube.com/watch?v=M9-GkbwCTkw</p> <p>- Our Weather Station: Remind children of the weather station they built during the previous autumn and winter unit. <i>Can you remember what it is measuring and how?</i> Remind children of the tools being used to measure the weather and the units they use (for example, the rain gauge measures the rainfall in mm).</p> <p>- Weather Report: Children use the differentiated 'Weather Report Activity Sheet' to record the weather for today. Watch a weather report online to compare it, then use a weekly weather forecast online to view what is predicted for the week ahead. Monitor the weather for the next week or so using the weather station and record on the weather chart each day – large one in class or small ones in books – comparing it to what was forecast. Use the 'Weather Symbols Prompt Sheet' to</p>	<p style="text-align: center;">Evaluation</p>

remind children of the weather symbols if needed or cut them out and use them on a class weather log. Following the recording of the weather over a week, be sure to discuss the results. *What do you notice about the weather over the week? What has the temperature been? What has the weather been like? Does this match what we learnt about springtime? Why?*

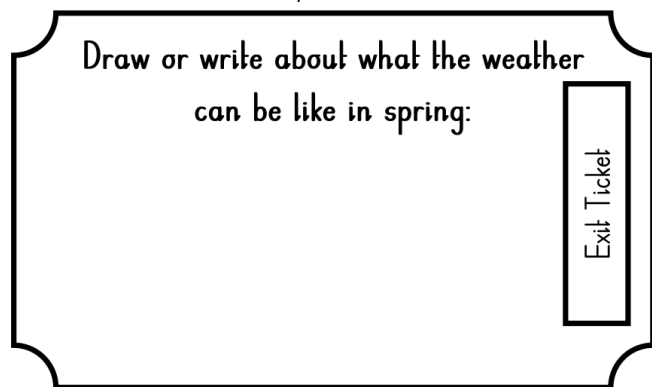
Cross Curricular Links

English: Shared reading.

Maths: Volume measures for rain.

'Exit Ticket'

Children draw weather symbols to show what the weather is generally like during spring.



Week 3	Key Question for Lesson 3: What signs of spring can we observe?	Key Vocabulary
	<p>Key Milestone: Observe changes across the four seasons.</p> <p>Resources: clipboards, iPads to take photos</p> <p>- Signs of Spring: Look at the spring picture (see PPT). With a partner, children discuss any signs in the pictures which suggest it is spring.</p> <p>- Out and About: Explain that today they will be going on a short local walk and doing their science learning outside. Remind children of the rules they must follow to keep them safe and go through them to ensure their understanding.</p> <p>- Look Closely: Explain they will be looking out for signs of spring. Share read about and model how to fill in the Spring Walk Checklist'. Explain they will be working in pairs so will be sharing a clipboard, sheet and pencil.</p>	<ul style="list-style-type: none"> • observe • signs • record • blossom • buds • daffodils • dandelions • bees • frogspawn • tadpoles • lambs
		Evaluation

- **Spring Walk:** Children go on a short local area walk. They work in mixed ability pairs to complete the 'Spring Walk Checklist'. If possible, let children take photos of some of the signs of spring on iPads to display or stick in books.

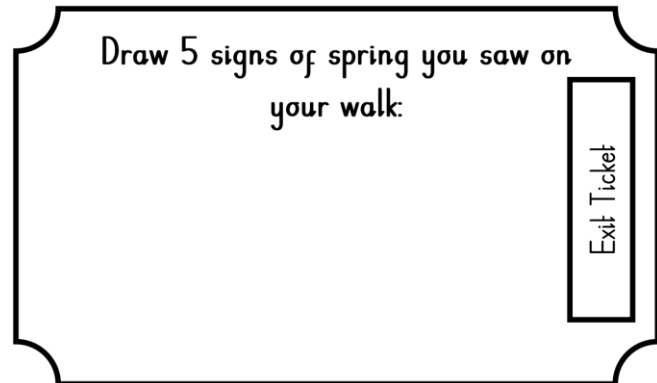
- **Observations:** When back in the classroom, ask the children to feed back their observations. *What different signs of spring did we find?* If possible, share any photos taken with the whole class on the whiteboard, allowing children to share what their photo was of.

Cross Curricular Links

English: Shared reading.

'Exit Ticket'

Children record 5 main signs of spring that they observed whilst on their walk.



Week 4	Key Question for Lesson 4: What changes occur in summer?	Key Vocabulary
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<p>Key Milestone: Observe and describe how day length varies.</p> <p>Secondary Milestone: Observe changes across the four seasons.</p> <p>Useful Links:</p> <ul style="list-style-type: none"> - http://www.bbc.co.uk/education/clips/zrjd7ty - https://www.youtube.com/watch?v=Z3RSpxiD8tc - https://www.bbc.co.uk/teach/class-clips-video/science-ks1-ks2-how-summer-weather-affects-behaviour-of-british-animals-plants/zkdkjhv 		<ul style="list-style-type: none"> • summer • season • hot • heat • daylight • day length
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- **The Four Seasons:** Recap the names of the four seasons. Then match the months with the season they are in. *Do you know any events which happen in these months? What do we already know about the seasons? Which one haven't we focused on yet? What do you think happens in summer?*

- **Changing Seasons:** Watch this video <http://www.bbc.co.uk/education/clips/zrjd7ty> and ask children to put their hand up when they think it is summer. *Why did you think that part was summer? What changes do you notice as spring turns to summer?*

- **Summer:** Share read (see PPT) about and discuss some of the changes which happen in summer. Watch <https://www.youtube.com/watch?v=Z3RSpxiD8tc> to find out more about summer.

- **Day Length:** Look at the table. *What do you notice about the average number of hours of daylight during the summer? How does this compare to the number of hours of daylight in the spring?* If the days in the summer are longer then encourage children to think about what happens to the nights.

- **Changes around Us:** Children use the differentiated 'Changes Around Us Activity Sheet' as a guide to record what the trees look like and the clothes people wear in summer.

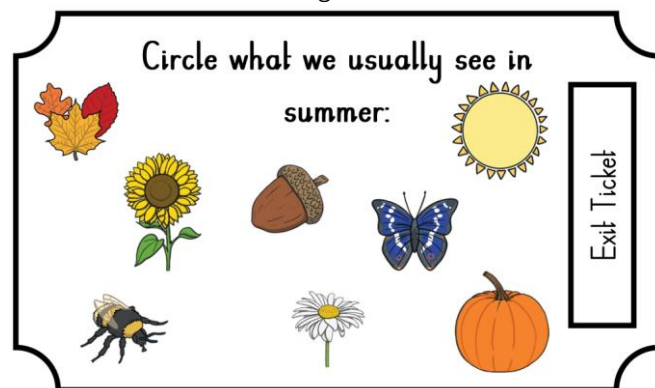
- **Summer Changes:** *What have you noticed about the summer? How do we deal with the weather? What do we wear? What has happened to some of the trees? Why?*

Cross Curricular Links

English: Shared reading.

'Exit Ticket'

Children circle the usual signs of summer.



Week 5 **Key Question for Lesson 5: What is the weather usually like in summer?** **Key Vocabulary**

Key Milestone: Observe and describe weather associated with the seasons.
Secondary Milestone: Gather and record data to help in answering questions.

- **Summer:** Talk partners discuss what their experiences of summer are. Use prompt questions (see PPT) to help structure their discussion.

- **Summer Photos:** Look at summer photos (see resources) and discuss them. *What is the weather usually like in summer? Does it ever rain in the summer? What type of weather do we sometimes have in the summer after it has been very hot and sticky? What can you do more of in the summer, compared with other seasons?*

- **Summer Weather Forecast:** Look at this forecast based on the first week in July in Dudley and discuss what it is showing us (children will need guidance to interpret it, but this was the simplest version I could find from here:

<https://www.metcheck.com/WEATHER/180days.asp?MonthOf=7&zipcode=Dudley&locationID=57561&lat=52.5&lon=-2.1>).

Day	Max	Feels	Min	Amount	Cloud	Dir	Speed	RH	Weather
Sat 1 Jul	21 °c	22 °c	21 °c	0.0 mm	36 %	↑	2 mph	69 %	
Sun 2 Jul	21 °c	23 °c	21 °c	0.0 mm	23 %	↙	4 mph	67 %	
Mon 3 Jul	22 °c	23 °c	21 °c	0.0 mm	60 %	↙	4 mph	72 %	
Tue 4 Jul	21 °c	23 °c	21 °c	0.0 mm	32 %	↙	6 mph	69 %	
Wed 5 Jul	21 °c	23 °c	21 °c	0.4 mm	51 %	↓	2 mph	77 %	
Thu 6 Jul	23 °c	25 °c	23 °c	0.0 mm	8 %	↑	2 mph	67 %	
Fri 7 Jul	21 °c	23 °c	21 °c	2.0 mm	85 %	↓	2 mph	81 %	

Summer Plans: Explain that Teddy is having some time off from school for this period and the children are going to report to him what the weather will be like and suggest what he might want to wear on certain days to make sure he stays cool / dry / protected from the sun. Model how the children are to record this (I would use a school timetable layout with columns across the top for temperature, rainfall in mm, weather (record typical weather symbols as seen on example above), clothes, accessories or sun protection he might wear, and finally activities he could do (picnic / barbecue / fishing / something inside if it rains etc.

- **Weather Reports:** Children can present their weather reports and ideas for clothing / activities to Teddy. Other children can peer-assess accuracy of weather recorded and appropriateness of suggestions.

Cross Curricular Links

English: Shared reading.

'Exit Ticket'

Children draw things that Teddy might experience or need in the summer.

- sunshine
- sunny
- warm
- hot
- heat
- temperature
- millimetres (mm)
- degrees Celsius (°C)

Evaluation

Draw or write what Teddy will need
for the summer weather:



Exit Ticket