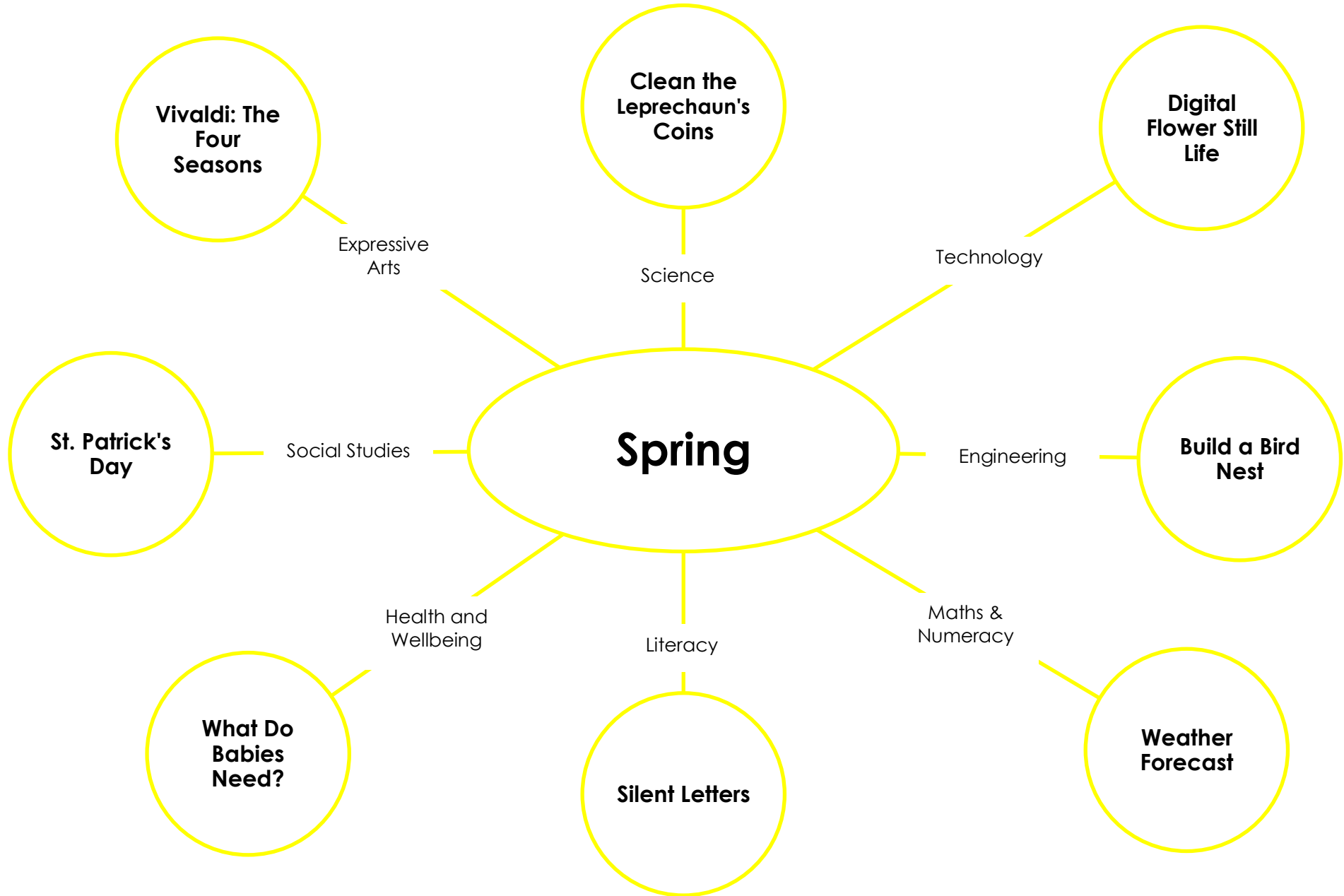


# Learning from Home



# Science Challenge



## Clean the Leprechaun's Coins

### Adult Supervision Required

St. Patrick's Day is on Thursday 17<sup>th</sup> March and Irish folklore tells us that fairies, called leprechauns, put a pot of shiny coins at the end of each rainbow which they then guard.



Coins become dirty over time so how could a leprechaun keep his coins shiny and clean? Let's find out.

**You will need:** white vinegar, salt, water, 2 bowls with a good size bottom base, a teaspoon, paper towels or kitchen roll, discoloured 1p and 2p coins

### Instructions:

1. Fill 2 small bowls with about 1/4 cup of vinegar and a teaspoon of salt each. Mix thoroughly.
2. Before dropping the discoloured coins into the bowl, take one and dip it halfway into the bowl. Count to 10 slowly and pull it out. What happened?
3. Add a few more coins and let them sit for a few minutes. What can you see happening? (Make sure to add the same number of discoloured coins to the other bowl too.)
4. Now, take the coins from one bowl, rinse them in running tap water and let them dry on a paper towel. Take the other pennies from the other bowl and place them directly on another paper towel without rinsing them first. Let's wait an hour and see what happens. **Make a prediction** – what do you think will happen? **Talk to an adult at home about it.**
5. Can you see any differences between the two groups of coins, the rinsed and unrinsed pennies? Do you now have some green and/or shiny coins?

**Extension:** Substitute the vinegar for lemon or lime juice which is also acidic. Do you think this will have a greater cleaning effect than the vinegar? Why? Test it out and see.

**The Science:** Coins in the UK – 1ps and 2ps, are made mostly from a metal called copper. Copper is shiny and bright but when the tiny particles (atoms) in the copper mix with oxygen atoms in the air, copper oxide is formed giving the coins a dull greenish grey dirty colour. Adding the coins to the mixture of salt and vinegar, which is a mild acid, should dissolve the copper oxide revealing the original shiny clean metal below.



Activity adapted from <https://littlebinsforlittlehands.com/>  
Clipart from [www.clipart-library.com](http://www.clipart-library.com)

# Technology Challenge



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## Digital Flower Still Life

### Adult Support Required

Spring is the season of new life for both animals and plants. It is lovely to see the flowers starting to grow as they bring back some colour to the world.

**Your task:** is to create a digital flower still life. You will do this by drawing some flowers and altering them with a photo editing program.

**You will need:** drawing materials (pens / pencils), white paper, construction paper, scanner or camera, computer or tablet, printer, scissors, glue,

### Instructions:

1. Draw your flowers individually along with a vase on white paper.
2. Take a digital photo or scan your flower and vase drawings.
3. Edit your flower and vase photos with a photo editing program. You may have one installed on your computer at home but if not **PicMonkey** is a good one and its free! - <https://www.picmonkey.com/photo-editor> (You will need an email address to sign up – ask an adult)
4. Print your flowers and vase and cut out with scissors.
5. Arrange and glue your flowers and vase on to a piece of construction (or scrapbook) paper. Use different coloured paper to create a pattern for the background behind the flowers and a darker coloured paper for the table that is behind the vase.

**Note:** this activity is challenging.

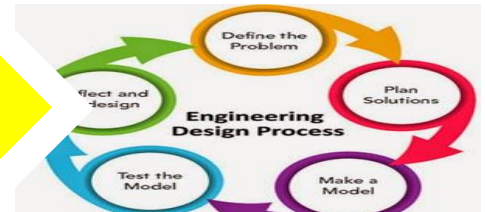
### Tips:

1. If you don't have a camera or scanner, you could create your flower picture using **Word** and the **Draw** tool then print out as described.
2. If you don't have access to a printer, create your images as described and save them. You can still create your still life by drawing the flowers first.



Activity and images from: <https://innovationkidslab.com/>

# Engineering Challenge



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## Build a Bird Nest

### Adult Supervision Required

In the Spring, birds start to build their nests ready to lay their eggs.

**Challenge:** Build a nest to provide a safe, strong and warm place for a bird to lay a new clutch of eggs.

**Plan it:** Write down or sketch some ideas as to how you will construct the nest.

**Build it:** Using twigs (thick and thin), grass, wool, strips of paper, old rags, etc.

**Test it:** If your first design doesn't work, evaluate (try to work out) what went wrong and try again.

**Reflect:** Will your nest make a suitable home. Look up information about different types of nests and how they are constructed. Could you make it bigger / smaller, smoother with less jagged twigs sticking into the middle, could it be warmer – how could you 'insulate' it further?

**Improve it:** Use your reflections to improve your nest.

**Can you find somewhere outside to place your nest when you have built it?**



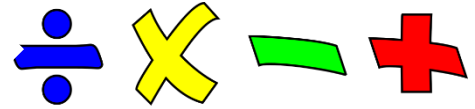
Image from [www.clipartlibrary.com](http://www.clipartlibrary.com)

Not all nests are the same! Click here to find out about the different types of nests and the birds which use them:

<https://www.youtube.com/watch?v=Y8HaGHMHHys>

**Extension:** Take a photograph of your finished nest with a toy in it. If you can, paste the photo onto a **Word** document and type up a short explanation of what it is and how you built the nest. Remember to give your document a name before saving it. Ask a grown up for help if you need to.

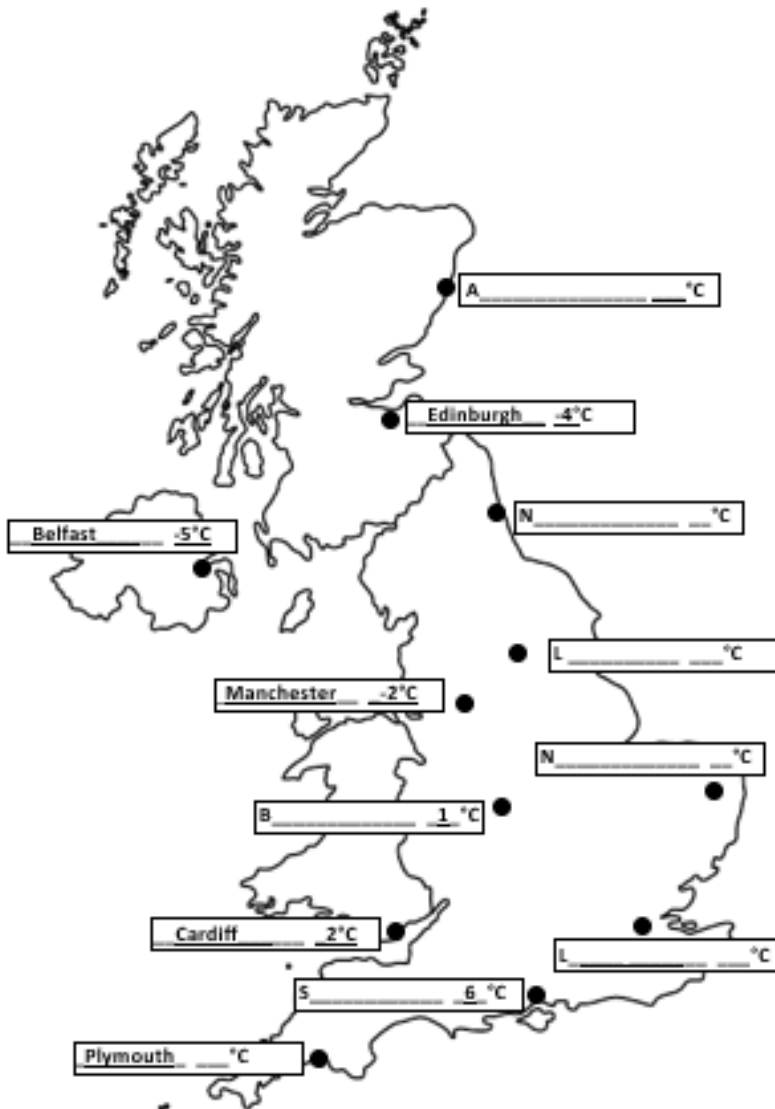
# Maths & Numeracy Challenge



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## Weather Forecast

Temperatures in early Spring can still be very cold. Sally Cloudburst is a weather presenter, she has to report the temperatures for different cities in the UK. Unfortunately, a large gust of wind has just blown her notes away and she only has a few clues about today's lunchtime temperatures in a random order. Can you help her piece the facts together and then label the map with the correct information?



1. This lunchtime, the temperature in Edinburgh will be exactly halfway between that of Birmingham and Aberdeen	2. The temperature in Cardiff this lunchtime is exactly halfway between that of Manchester and Southampton.
3. This lunchtime, Southampton is 11°C warmer than Belfast.	4. The temperature in Norwich will be 8°C warmer than Edinburgh today.
5. Today, the temperature in Leeds will be 6°C below that in Plymouth.	6. The temperature in Manchester this lunchtime is -2°C
7. Birmingham is 3°C warmer than Manchester today.	8. Today, Aberdeen is 6°C colder than Newcastle is.
9. The temperature in Newcastle is 5°C colder than Cardiff today.	10. This lunchtime, London will be 4°C warmer than Leeds.
11. Today, the temperature in Plymouth is 1°C warmer than Norwich.	12. Belfast is 6°C colder than Birmingham is this lunchtime.

10 °C
9 °C
8 °C
7 °C
6 °C
5 °C
4 °C
3 °C
2 °C
1 °C
0 °C
-1 °C
-2 °C
-3 °C
-4 °C
-5 °C
-6 °C
-7 °C
-8 °C
-9 °C
-10 °C

**You may need:** an atlas or computer / internet access to help you locate the cities on the map.

Negative numbers are those which go below 0. (Use the number line to help you count if required)

**Problem solving strategies you may find useful:** 1. Produce an organised list/table, 2. Reason logically, 3. Guess, check & Improve (**Look for the information you have already been given.**)

Activity and images from TES

1. -9°C 2. 2°C 3. 6°C 4. 4°C 5. -1°C 6. -2°C 7. 1°C 8. -4°C 9. -3°C 10. 3°C 11. 5°C 12. -5°C



# Literacy Challenge



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## Silent Letters

Some words are spelt with silent letters. Have a go at this game and see how many of these words you know and can spell correctly.





Clipart from [www.clipart-library.com](https://www.clipart-library.com)

**What You Need:** The Silent Letter Bingo Board (below), a counter, dice, piece of paper, pencil, answer grid and a partner (optional)

**Instructions:** Write the numbers 1 -20 down the left-hand side of your paper. Roll the dice and move your counter the appropriate number of spaces. Read the question out loud and say the answer. Write your answer on your paper at the appropriate number. When you get to number 20 (Home) try to find your answers in the answer grid - did you get them right and did you spell them correctly? If not rub them out or put a line through them and start the game again. Can you spell the word correctly next time? Keep going until all the words have been written down correctly.

If you play with a partner, you can both write down your answers or you could spell the words out loud with the other person checking them. The winner is the first person to get all the spellings correct.

HOME! 	19. You do this on a door to get an answer.	18. Girls wear these but boys don't.	17. When the wind isn't blowing the sea is _____	16. Plum and thumb do this.
20. The biggest mammal.		13. You use this to keep your hair tidy.	14. The opposite of right.	15. This holds a flower up.
11. You tie this in string.	12. A knight uses this for fighting.	8. You find this around a chocolate bar.	7. A joint halfway up/ down your leg.	6. A baby cow
10. This can cut.	9. Two quarters.	3. You need a pen or a computer to do this.	4. The yellow part of an egg.	5. A tiny piece of bread or biscuit.
1. Most people wear a watch here.	2. You have one of these on each hand.			
START!				

wrist	whale	could
calm	knob	crumb
what	wrapper	comb
thumb	knock	limb
rhyme	gnash	calf
answer	half	sword
write	knickers	lamb
stalk	wreck	knee
kneel	knife	knot
yolk	wrong	wrinkles

Look up any words you are unsure of in a dictionary.



Activity adapted and image from [www.collaborativelearning.org](https://www.collaborativelearning.org)



# Health & Wellbeing Challenge

## What Do Babies Need

Spring is a time for new life. Lots of animals have their babies at this time of year as it becomes warmer, and more food sources become available.



Unlike some animals, humans can have babies at any time of year. Babies need a lot of care to help them grow and develop.

**Click here to find out more about life with a newborn baby:**

<https://www.youtube.com/watch?v=m9QndNXcnCU>

**The following tasks require you to think about the questions and scenarios and to discuss your thoughts and ideas with an adult.**

### Task 1:

1. What would be the best thing about being a mum or dad?
2. What would be the hardest thing about looking after a baby?
3. Do you think you would like to be a parent one day?

**Task 2:** Imagine that you are planning for the arrival of a new baby. What kind of equipment and items might you need?

**Task 3:** Again, imagine that you are planning for the arrival of a new baby. What kind of skills and qualities do you think you might need to be able to provide the baby with everything they might need?

bath      milk  
 sleep    humour  
 support   clothes    sense  
    resilience    care  
 nappies    cream    love    patience  
 pram      basket  
 cot                      commitment  
    dummy



**Can you think of any other words?**

Activity adapted from: <https://rshp.scot/>  
 Image from: [www.clipart-library.com](http://www.clipart-library.com)

# Social Studies Challenge



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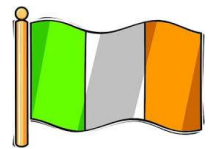
## St. Patrick's Day

Saint Patrick's Day (St. Patrick's Day) is a popular Spring festival celebrated by millions of people all around the world.



St Patrick was actually born in Wales around 386 AD, when the Romans were still occupying parts of Britain, but he is remembered as the patron saint of Ireland. The day is a celebration of Irish history and culture.

This year St. Patrick's Day will be celebrated on Thursday March 17<sup>th</sup>.



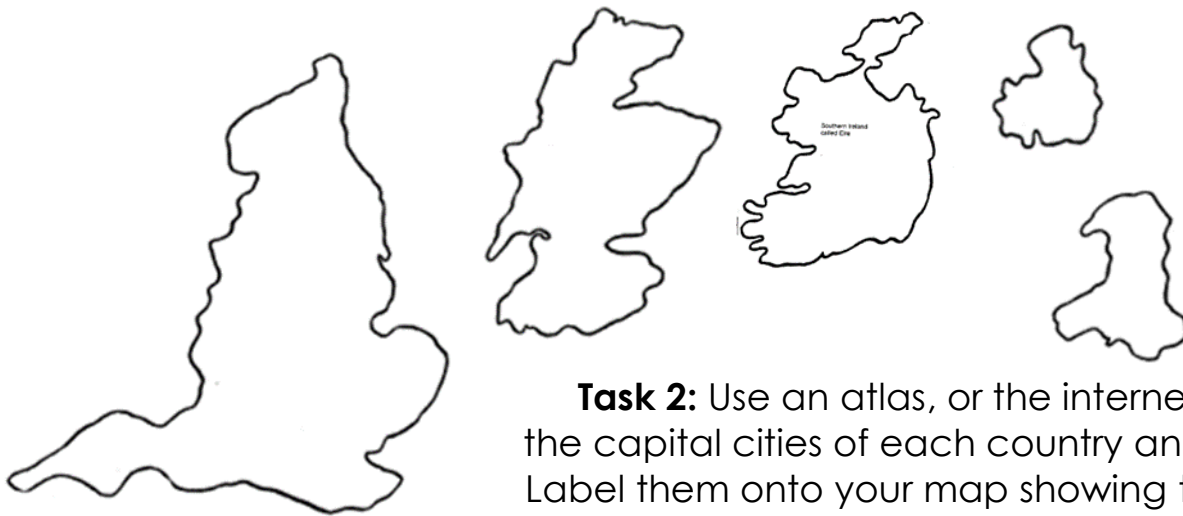
**Click here to read more about St. Patrick:**  
<https://www.bbc.co.uk/newsround/35831743>

**Click here to watch an animated video:**  
<https://www.youtube.com/watch?v=8OO-bw9m6U4>



### Task 1:

Cut out each of the countries below and stick them down onto a piece of paper in the correct positions. Label each country. Which one isn't part of the UK? If you have internet access (or perhaps an atlas), look up the flags of each and draw them, labelling each flag appropriately.



Activity and map images adapted from TES  
 Clipart from [www.clipart-library.com](http://www.clipart-library.com)

**Task 2:** Use an atlas, or the internet, to find out the capital cities of each country and their locations. Label them onto your map showing the locations of each.



# Expressive Arts Challenge



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## Vivaldi: The Four Seasons

### Antonio Vivaldi

- Born: **1678**
- Died: **1741**
- Nationality: **Italian**
- Musical Period: **Baroque**



**Why was he a Trailblazer?** Can orchestras bring people, animals, landscapes and stories to life – using music? Trailblazer Antonio Vivaldi thought so.

Around 300 years ago when he wrote **The Four Seasons**, he was one of the first people to compose music that was designed to remind listeners of places and things in the world around them. The Four Seasons, as you can probably guess, is made up of four different movements: Spring, Summer, Autumn and Winter. Each movement sounds different and represents the season they are named after, for example *Spring* is full of energy in a **major key signature**, whereas *Winter* sounds harsh and is in a **minor key**.

Click here to find out more about major and minor keys:  
<https://www.youtube.com/watch?v=1I5e8PPtbrI>

Click here to watch the Thunder Jam Gang explore the music of Vivaldi:  
<https://www.bbc.co.uk/teach/bring-the-noise/thunder-jam-weather/zk6pxyc>

**Your task:** is to draw the Spring movement of Vivaldi's Four Seasons just like the children in the video did. **Click here to listen to the music:** <https://youtu.be/l-dYNttdqI0>

### Extension:

1. Can you hear the different instruments in the music? You will hear viola, violins, cellos, a double base and a harpsichord. Can you make out each one?
2. The violin is arguably the star of The Four Seasons. Do your own research about the violin. How many strings does it have, which group does it belong to etc.

Activity adapted from <https://wolverhamptonmusicservice.org.uk/>  
 Images from [www.clipart-library.com](http://www.clipart-library.com)