# **Science Challenge**



### **Incy Wincy Spider Umbrellas**

We are going to create umbrellas from different materials for Incy Wincy spider and test which materials are the most waterproof, and therefore make the best umbrella.



You could use pipe cleaners, if you have them, to make the stem of the umbrella. If you don't have any then you can take your experiment outside and use sticks pushed into the ground. Make the top of your umbrellas using different materials. You can use felt, plastic, paper, tin foil or anything else that you can find at home. You could even try to make an umbrella with leaves from outside.

Attach your umbrella tops to the top of your sticks or pipe cleaners. On a piece of paper below the umbrella draw a spider, or you could make a spider from playdoh.

Now it's time to test them!

Predict - Which one do you think will keep the spiders dry?

Test - Spray or sprinkle the top of your umbrellas with water. Use the same number of sprays/sprinkles for each umbrella.

Evaluate - Was your prediction correct?

Incy Wincy spider climbed up the waterspout,
Down came the rain and washed the spider out.
Out came the sun and dried up all the rain,
So Incy Wincy spider climbed up the spout again.



## **Technology Challenge**



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### Design a waterproof shelter

In our science activity this week, we have explored which materials are the best to make an umbrella for Incy Wincy spider. You will know which material is strongest or weakest and which one is waterproof too. Can you use that information to design and make a waterproof shelter for Incy Wincy spider or another insect in your house or garden?

Your first job is to draw the shelter. You can use paper and pencils for your design or you can use your computer device at home.



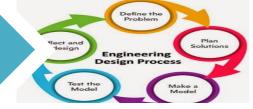


Think about what your shelter will need to have to keep the insect safe and dry. What materials will you use? Remember which materials worked well for the waterproof umbrella. Use materials from outside in your garden because this is what an insect would use themselves.

Once you are happy with your design, have a go at building it. Is it strong enough? Is it waterproof? Is it big enough for Incy Wincy spider?



## **Engineering Challenge**



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#### **Three Little Pigs**

We are going to explore the best materials for building houses for the Three Little Pigs. You can use some things you find around your house, in your garden, or things you can collect when you're out for your daily walk.

Build your first house with sticks. You can find sticks in your garden or you can collect them on your walk. Which sticks are the best to build with? Are bumpy sticks better than smooth sticks? Are long sticks better than short sticks? How big do you need to build your house?





Build your next house with straws. If you don't have straws you could make it out of rolled up newspaper. Think about how you are going to make the straws stay together. Will you stack your straws or are you going to put them into bundles? How big can you build this house?

Finally, build a house out of bricks. You can use lego, cardboard or even stones that you find outside. Build the house big enough for your pig family or whichever toy you are putting inside.

Your last task is to test the houses. Just like the Big Bad Wolf, you can blow on your houses to see which one works best. Or, with an adult's help, you could use a hairdryer to try to



blow the houses down. Another good way to test the houses is to use an old, empty squeezy bottle. If you squeeze the sides it will blow out air to test your houses!

Watch a version of The Three Little Pigs story here - <a href="https://www.youtube.com/watch?v=2s7cz6p7jew">https://www.youtube.com/watch?v=2s7cz6p7jew</a>



### **Maths & Numeracy Challenge**







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#### **Outdoor Maths**

Can you count natural materials that you find in the garden or out on a walk? Once you have counted the materials, can you match them to the number?







Ask an adult to set you challenges of what to collect and how many you should collect. You can use coloured pens to write the numbers on stones.

Can you make stone towers and count how many stones you have used?







Try to make a tower of one, then two, then three, then all the way up to ten. What is the biggest tower you can make and how many stones does it have?

Can you make a piece of art using a set number of items? Try making a picture with 5 or 10 things that you find outside? Is it easier making a picture with more or fewer items? You can make a frame for your artwork using sticks that you find.





Images from playofthewild.com



## **Literacy Challenge**



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### We're Going on a Sound Hunt!

Let's go on a sound hunt! Before we do, let's practice some sounds. Have an adult read out the words below- what is the first sound that you hear in each of these words? What is the last sound you hear?

cat, stop, turn, bed, find, hot, car, jam, pin

Now it is time for our sound hunt. Click the link below to access a letter wheel.

https://pickerwheel.com/tools/random-letter-generator/

Click the middle button to spin the wheel. Whatever letter it lands on, you must find an item or thing that starts with this sound! For example, if the wheel lands on 'a', you could find an apple or an alarm clock! You can look inside or outside. Spin the wheel as many times as you like.

Here are some questions a family member can ask you when you are completing your sound hunt-

- What is the first sound that you hear in the word?
- What is the last sound you can hear in the word?
- How many syllables (claps) are in this word? (ie. banana = ba-na-na, 3 claps)
- Can you think of any other words that start with this sound?
- Can you remember the action and song for this sound? (see jolly phonics sounds video)



Image from https://pixabay.com/photos/ detective-magnifying-glassviewing-788592/



Early Level - Week Challenges - 22/2/21

### **Health & Wellbeing Challenge**



#### Getting Help in an Emergency

Today we are going to learn all about ways that we can get help in an **unsafe situation** or **emergency**. Let's get started by thinking about what an emergency or unsafe situation is. Have you heard the word emergency before? What might that mean?

Click the link below to watch a video of Barnaby Bear. In the video, Barnaby Bear takes a trip with his Dad to Poole Beach. He ends up in an unsafe situation as well as seeing an emergency unfold! Watch to see how Barnaby reacts in the unsafe situation, and what he does when he sees the emergency.

https://www.youtube.com/watch?v=azhK5uf3t\_0



Image from https://pixabay.com/photos/coast-quard-knmr-lifeboat-port-3108861/

#### Once you have watched the video, discuss the following questions with an adult-

- What happened to Barnaby Bear when he was first on the beach with his Dad?
- How did he react in this unsafe situation?
- Who was there to help him when he wandered away from his Dad?
- What did he learn from this situation?
- What did Barnaby do when he saw the kids in the sea?
- What number did he call?
- How did his actions help the Coastguard and the kids in the sea?

Have a think about any other emergencies or unsafe situations that people can get into. What could be done in this situation to help? Have a go at drawing a picture and discussing this with an adult.



# **Social Studies Challenge**



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### Fairtrade Fortnight

This year, Fairtrade Fortnight is taking place between 22<sup>nd</sup> February to 7<sup>th</sup> March. It takes place every year, and during this time, people from the UK come together to talk about the lives of farmers across the world, particularly in developing countries such as Columbia, Costa Rica and Ghana. These farmers make lots of food that we eat here in Scotland, and often don't get paid enough money for their hard work. Fairtrade working is helping to get these farmers more money for their work.

There are lots of foods that are produced under Fairtrade. Click the link below to watch a video by **Pablo the Super Banana**. Pablo is a Fairtrade banana, and in this video, he shows us how lots of food, including bananas, are produced and transported to different countries across the world.



https://schools.fairtrade.org.uk/teaching-resources/pablo-the-super-banana/

Once you have watched the video, discuss the following questions with an adult-

- How are the bananas grown and cared for?
- What happened when the farmers were not getting paid enough?
- What other foods are produced in Fairtrade?
- Can you describe what the Fairtrade mark looks like?
- Have you ever seen the Fairtrade mark in a shop?

Have a go at drawing a picture of **Pablo the Super Banana**. Make sure you include the Fairtrade mark sticker that's on him! Around Pablo, draw pictures of some other Fairtrade foods. Work with an adult to research fairtrade foods online, and have a look out for the Fairtrade mark next time you are in a shop! Can you label the food items you have drawn around Pablo?



## **Expressive Arts Challenge**



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### **Sketching Animals**

Today we are going to do some **sketching**. As we are still in Winter, our artwork today is going to be all around **sketching** Garden Birds. Have you ever seen a bird in your garden? Do you know the names of any Garden Birds?

We are going to be drawing a **Bullfinch** today. To help us in our drawing, we are going to follow a step-by-step video by **Sketching with Lucy**. She has many videos which teach us how to draw different animals including birds and marine animals such as an octopus!

Click the link below to watch **Garden Birds – Bullfinch** video by **Sketching with Lucy.** Remember- you can pause the video step by step so no need to rush through your sketching!

https://www.youtube.com/watch?v=WYygRTu1hw0

Did you hear any facts about the Bullfinch during Lucy's video? Tell a family member one fact that you learnt while drawing.

What is the sound of the Bullfinch? Can you try and recreate this sound? You could whistle, play an instrument, or try and make the noise in a new and creative way!

Once you have finished your drawing, keep a lookout in your garden for any Bullfinches! Do they look similar to the sketch that you have created?

