



Theme Overview		Project Outcomes	
<p>Understand the effect of changing seasons on the natural world around them. Explore the natural world around them Describe what they can see, hear and feel whilst outside. Use talk to help work out problems and organise thinking and activities, and to explain how things work and why they might happen. Connect one idea or action to another using a range of connectives.(nar-rate actions, remind of previous events, extend their thinking Learn and use new vocabulary throughout the day.</p>		<p>To talk about different materials. To test materials and say which is more suitable to solve a problem. (make a bridge for the billy goats, make a boat for the gingerbread man) To use new vocabulary to describe materials and properties -strong, sturdy, fragile, plastic, wooden, metal, thick, thin, waterproof, floats, sinks, cardboard, paper, balance, stable,</p>	
<p>Science prompt questions. What can you see? What does it remind you of? What do you think will happen next? How can we change this? What do you already know about...? What is the same/different? I wonder why... I wonder when... I wonder how... I wonder what... What would happen if...?</p>		<p>Longitudinal study Opportunities to record the weather changes. To take photos and comment on changes in trees, plants that have started to grow.</p>	
Skills Focus	Sequence of Learning		
<p>Main Skills Focus: To combine materials to make a structure or a boat. To test materials to see if suitable for purpose. To talk about why they choose/did things.</p>	<p>Lesson 1:To solve a problem LI - To investigate and make a way for the gingerbread to cross the river safely. Show a picture of the gingerbread man being eaten by the fox. The gingerbread's brother wants to cross the river but he does not want to be eaten by the</p>	<p>Other opportunities through provision Can you help the story characters cross the gap? (spring roll man, billy goats gruff)</p>	<p>Outdoor provision - can you use different obstacles to get over mud? Stepping stones, bridge, crates and tyres, planks. Work together to move and plan ideas. Adults take photos and record pupil voice so can share end of term.</p>

Linked Skills Focus:

Design technology - joining materials

Learning about Scientists:

Engineers - Thomas Telford (Scottish engineer-roads, tunnels and bridges)

Isambard Kingdom Brunel-

English - Clifton suspension bridge.

<http://www.historyofbridges.com/bridges-history/famous-bridge-designers>

Teaching science skills and techniques at Mrs Bland's Infant School.

- we encourage the children to think that we can all be scientists.
- We are curious, we share ideas, explore our environment and ask questions to find out the answers to things we don't not know yet.

fox. *Can you help him think of a way to get across?*

Think, pair, share. (adults listening into conversations as talking-pull out some key ideas) On the whiteboard make up a brainstorm of things said. TA - record any specific pupil voice, especially when giving reasons why (critical thinking evidence)

If they are struggling could link back to them - how have you crossed a river before?

Unpick ideas as collecting them - ie if they say bridge... what kinds of materials would he need? If you were going to create a toy bridge what materials in the classroom could we use? Would that be quick to make? Do you think the animals would catch him?

If say boat - what materials might work best? What does a boat need to be able to do/not do (float, let water in/sink) What materials could you use? How could you test if it works?

Might have more unusual suggestions like - aeroplane? Rope swing? Explain chn can work on their own or with a friend and help the gingerbread man to cross the river (water tray outside can be our testing place, put some kapla bricks with gmen on them so they can test. Adults to talk to chn as making - encourage them to think of different ways to join materials, why they are choosing or not choosing different materials.

Photos and pupil voice collected. Add to seesaw

Make bridges spanning the gap in the table (different materials each day)

lolly sticks.

Art straws

Paper/card

Kapla bricks - can you make a different shaped bridge? Look at different pictures of bridges.

How can you make the bridge stronger ? can all 3 goats stand on it?

Adults take photos and record pupil voice so can share end of term.

Lesson 4/5 - To design a different way to cross a river. (Linked to DT)

Recap all the different ways you have made bridges this term. (show photos children talk about what they found out)

What do you think the best materials were? What were any problems you found? Did you solve them?

Can you think of a different way for lego man to cross a river not a boat or bridge - think creatively! (helicopter, plane, hot air balloon, kite, submarine, rope swing,)

Can you draw your design? What would you use to make it from? Can you work with a partner?

Can you test it? What did you find out? Do you need to change anything? Which materials did you use and why?

Opportunities / objects for scientific questioning

Sorting materials - testing strength weights.

Can it bend? Stretch? Twist?

Testing how to join materials - tape, glue, paper clips,

Feely boxes - materials - Can you describe it - soft, smooth, rough, bumpy, hard,

Up close pictures different materials can you match them.

Books / pictures on boats and bridges.