



Science planning with Sustainable Travel Links for Year 1 and 2 Working scientifically to investigate materials suitable for bike saddles

Objectives:	<ul style="list-style-type: none"> • describe the simple physical properties of a variety of everyday materials • name materials and properties waterproof/not waterproof; absorbent/not absorbent • perform a simple tests to explore the questions material for a bike saddle
Success Criteria:	<ul style="list-style-type: none"> • Use of the key vocabulary: waterproof, non waterproof, absorbent, non absorbent, comfortable, flexible, leather, plastic, fabric, tissue, prediction, conclusion • Cooperative group work • Use of a fair test • A prediction that can be linked to the conclusion
<p>Teacher Input with key questions: Explain that today's lesson is about materials. Look at the following activity:</p> <p>http://www.bbc.co.uk/schools/scienceclips/ages/6_7/grouping_materials.shtml What did we notice?</p> <p>If possible go into the area where the cycles and scooters are stored and or look at the Foundation stage bikes. What materials are used to make these vehicles? Ask questions that link the object to the material – why is rubber used for the tyres and wheels? Why is metal used for the spokes and platform? What covering is used for the handle bars, saddle etc.</p> <p>Task If possible have several of the cycles out f or the children to examine in groups and ask the children to really focus on the saddle.</p> <p>What shape is the saddle – why is that? How does it feel and why? Why are they different sizes? Are there any that are decorated? What material are they made from? Are there any that are split or cracked?</p> <p>Explain that today the children are going to investigate materials to find out which would make the best saddle cover. What properties will they be focusing on? What vocabulary will they need to use? What is the big question? – Which material will be the most waterproof for a saddle cover?</p> <p>How will they test it? How will that test be fair? What do they predict will happen?</p> <p>Show the children the equipment available - different materials, water containers, timers,</p> <p>Put into groups – allow time to discuss how they will carry out the investigation. Take some of the big questions. Support where needed and take pictures.</p>	<p>Activities</p> <p>Discussion and preparation time.</p> <p>How will it be a fair test? What is your prediction?</p> <p>Carry out investigation. CT and LSA to take photos as evidence and to support ongoing use of key vocabulary and recording.</p> <p>Plenary Mini plenary – what are some of the big questions? 2nd mini plenary - what conclusion have you reached? Have you recorded it? Show results to the class. Did your predictions match your results? What have you learnt today?</p> <p>Assessment</p> <ul style="list-style-type: none"> • Can sort materials into their properties • Can recognise the properties of vehicles in school • Can use key vocabulary • Can work co operatively in a group to carry out an enquiry that includes a fair test • Can create a prediction, results and a conclusion
Resources:	<p>http://www.bbc.co.uk/schools/scienceclips/ages/6_7/grouping_materials.shtml</p> <ul style="list-style-type: none"> • Use of cycles from Foundation stage / children's own • Access to cycle storage. • Variety of materials – cloth, plastic of different types - Hessian, thick card, lino, leather etc. • Water containers • Timers • Recording sheets – included but can be adapted.

My name:

Other people in my group:

Our big question:

My prediction – what I think will happen:

Description of what we did:

Equipment we used:

How we made it a fair test:

Results

Type of material	What happened

What we found out – our conclusion

Was my prediction correct?

What have I learnt today?