



STEM By The Book

The Adventures of Scout

– Stop Dropping Litter

Nick, Jon and Matt

Experiences and Outcomes

Through creative play, I explore different materials and can share my reasoning for selecting materials for different purposes. SCN 0-15a

Through exploring properties and sources of materials, I can choose appropriate materials to solve practical challenges. SCN 1-15a

I explore everyday materials in the creation of pictures/models/concepts. TCH 0-10a

I can recognise a variety of materials and suggest an appropriate material for a specific use. TCH 1-10a

I can recognise basic properties and uses for a variety of materials and can discuss which ones are most suitable for a given task. TCH 2-10a

Benchmarks

Explores and sorts materials into different groups depending on their properties, for example, whether they are strong, smooth, rough and if they float or sink.

Justifies the selection of appropriate materials for different uses based on their physical properties.

Resources

Magnet Wand

Bag of various materials (ensuring that you have a selection of magnetic and non magnetic together)

Trays



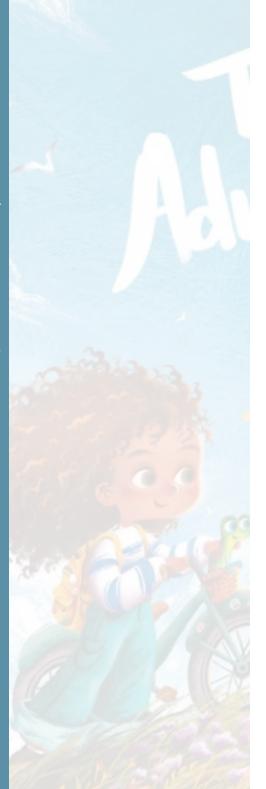
Activities

The Adventures of Scout – Stop Dropping Litter - is a great rhyming book that provides an opportunity for learners to investigate and get some hands on practical STEM experiences through -

- Classify and order materials linked to the story of dropping litter
- How could we sort these objects?
- What happens if we shine a light through them?
- I wonder whether any of them would make a good cover for a den?
- What would this material be used for?
- How would we find out if they are magnetic?
- Do you think there is an odd one out?
- Can we find a way to put them into groups?
- Where do you find these around us?
- Would you expect that they would all float in water?
- How does each one feel?

Invite a local STEM Ambassador in to talk to the learners – maybe local council recycling centre visit https://www.stemambassadors.scot







Letting the learner's explore!

Empty out the contents of your bag with selected materials and get the learners to start to explore the items...

The use of question starters supports observation, classification and exploration

What are question starters and how to use them.

Question starters, like story starters, allow for a better question to be asked and for better responses to be formed, providing that platform for open and free discussions and responses to one another's findings and opinions.

Examples of question starters ...

How could we ...?

What happens if ...?

I wonder whether...?

What would ...?

How would we find ...?

Do you think . . . ?

Can we find a way to ...?

Where do ...?

Would you expect that . . . ?

How does ...?





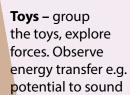
Additional links to learning:

An easy way to link this to any IDL topic across all ages and stages would be to place a selection of items into a tray, plate or box and ask the learners to find a link to the items, which one may be the odd one out, what theme they all follow. Allowing and exposing the learners to this type of hands on experiential learning allows for full inclusivity of all no matter the learners ability or current attainment.





Leaves – explore using senses other than sight and touch e.g smell (herbs)





Shells – this selection includes garden snail shells, duck shells and seashells. Plus Dog Whelk eggshells and "Mermaids Purses" (shark egg cases)

Useful resource

"Made You Look, Made You Think, Made You Talk" by Gaynor Weavers

Lots of good ideas in this publication!

