STEAM education

- strengthen learners' ability to integrate and apply knowledge and skills

STEAM in Living Oxford English

Science
- observing
- exploring

Technology
- inventing
- achieving

Arts
- creating
- designing

Mathematics
- counting
- measuring

Engineering
- building
- making

- enhance creativity
- nurture problem-solving skills
- develop collaboration skills
- foster innovation
A variety of topics

**Treasure from rubbish**

Do you hate throwing away things? Let’s learn how to make useful things from rubbish.

**A desk tidier**

First, collect three toilet paper rolls, a piece of cardboard and some pieces of craft paper.

Next, cut the toilet paper rolls into different sizes carefully.

Then, stick pieces of craft paper onto the rolls. Think creatively. You can stick simple patterns or pictures of animals on them.

After that, glue the rolls together.

Finally, stick one end of the rolls onto a piece of cardboard.

**Make a rainbow**

To make a rainbow, follow these simple steps:

- **Step 1**: Half fill the box with water.
- **Step 2**: Put the mirror in the water. Hold it in place with modelling clay.
- **Step 3**: Shine the torch at the part of the mirror that is under water.
- **Step 4**: Hold a piece of white paper above the torch.

What can you see?

**Make a musical instrument**

Let’s learn to make a music shaker. It is a handheld musical instrument and is easy to make.

**Next Stop Magazine**

A SURVEY REPORT—November

This month, we want to find out more about different means of transport.

**Do you like going around by tram? Why?**

<table>
<thead>
<tr>
<th>Why do you like going around by tram?</th>
<th>fun</th>
<th>cheap</th>
<th>convenient</th>
<th>clean</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 person</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

We have answers from 28 people living in this area. Do you want to know the top two reasons? Twelve people think it is fun to go around by tram. Nine of them think it is cheap to take a tram.

**An experiment to make a rainbow**

You need:

- a piece of white paper
- a mirror
- water
- a piece of modelling clay
- a box
- a torch

The experiment set-up:

What other objects can we use to reflect light to make a rainbow of colours?

**Learn about charts and survey reports**

**Making a musical instrument**

You will need:

- a plastic bottle
- some rice

Follow these simple steps:

- **Step 1**: Open the bottle. Pour out all the liquid. Clean the bottle. Allow the bottle to dry for several hours.
- **Step 2**: Put the rice into the bottle.
- **Step 3**: Screw the lid back on.

You can replace rice with other small objects, such as beans, beads and pasta. Note how different objects create different sounds.

You can decorate the shaker with ribbons, craft paper, stickers, etc. Hold the top of the bottle and shake it. Can you feel the vibrations on the bottle? Can you hear the sound?
All-around STEAM support

Activity worksheets and PowerPoint presentations to guide students to complete the tasks step by step

Teaching notes to give teachers support on STEAM ideas and activities

Additional online resources to encourage self-directed learning