SDG 11: Sustainable cities and communities
SDG 12: Responsible consumption and production

LENGTH OF ACTIVITY
two classes of 45-60 minutes

LEVEL:
3rd and 4th of primary

OBJECTIVES
Focus on SDGs #11: *Sustainable cities and communities* and #12: *Responsible consumption and production* in order that:

- the pupils understand how reusing objects can help improve sustainability (**cognitive domain**)
- the pupils can reflect critically on their own role as a consumer (**socio-emotional domain**)
- the pupils can propose solutions to reuse waste items that will help improve sustainability (**behavioural domain**)

LESSON 1
Material required:
Flashcard of the Reduce, Reuse, Recycle logo, worksheet 1, sheets of scrap paper, pens, pencils, kitchen scales and a few typical waste items (for example empty milk and juice cartons, empty plastic water bottles, plastic food bags, chocolate bar wrappers, various containers such as empty tins, etc.).

METHODOLOGY

WARMER

- Hold a class quiz with some fun facts about the environment and sustainability.
- Form groups of two or three pupils and make sure each group has a sheet of paper (ideally use paper that is being discarded and has been used on one side but not the other, to encourage pupils to reuse resources when possible) and a pen or pencil.
- The groups should write the names of the group members in one corner of the paper.
- Ask the following questions and invite the groups to discuss and write down their answers. (See the References section at the end of these notes for sources.)

1 How much of what we throw away in Spain is recycled?
a. 10%
b. 34%
c. 43% (correct)

2 How much of what we throw away ends up thrown on the ground, in rivers or in the sea?
a. 7% (correct)
b. 17%
c. 2%

3 How long does it take for a plastic water bottle to decompose?
a. 45 years
b. 450 years (correct)
c. 4,500 years

4 How much of the plastic we make is NOT recycled?
a. 91% (correct)
b. 86%
c. 69%

5 Methane is a gas that is harmful to the atmosphere. How much methane do cows produce each year through burps and farts?
a. Between 50 and 100 kgs
b. Between 100 and 200 kgs (correct)
c. More than 500 kgs

6 How many trees are cut down each year to make toilet paper?
a. About 10 million (correct)
b. About 5 million
c. About 1 million

- Ask the groups to exchange their answers with another group and then read out the correct answers and discuss them with the pupils. Take time to focus on any facts that they were surprised by and ask them why they found the answer surprising.

INTRODUCTION

- Show the pupils the Reduce, Reuse, Recycle flashcard and elicit what it means. Hold a brief informal discussion to find out how well the pupils feel they and their families recycle at home.
- Hand out worksheet 1 and ask the pupils to think about how much waste they produced yesterday and complete the table. To do this, first the pupils should think back to what they ate and any other things they might have done that generated waste and list the waste items in the table. Use a small kitchen scales and some example waste items to estimate the weight of each item on the learners' lists.
- Form small groups of three or four pupils and ask them to compare their worksheets to see if their estimates were similar or different. Then, working individually or in their groups, ask the pupils to calculate how much waste they produce in a year.
- Write their answers on the board and add them together to get an estimate of how much waste the whole class produces each year. Tell the pupils about the Sustainable Development Goals. Explain that these are 17 goals that people all around the world are working on to try to improve our lives. Let them know that some of the goals focus especially on helping the environment.
- Elicit that we should try to reduce the amount of waste we produce if we are to achieve **Sustainable Development Goal #11 Sustainable cities and communities and Sustainable Development Goal #12 Responsible consumption and production.**

TASK

- Hold a pyramid brainstorm to generate ideas for how to reduce the amount of waste we produce.
- First pupils work individually. Give them two to three minutes to come up with as many ideas as they can for how to reduce waste. If you think they may need more help with this, spend some time eliciting examples from the whole class first.
- Then ask the pupils to work in pairs. They should compare their ideas and choose the best three. Allow two to three minutes for this stage.
- Finally, form groups of four by asking each pair to join with another pair. Tell the pupils they have two minutes to decide which one idea they like best. Each group should elect a spokesperson to stand up and explain and justify their idea to the class.

REVIEW

- Discuss the ideas with the whole class. Ask pupils to think about which ideas were similar, which were completely different from the others, or surprising in some way, and so on. Then you could hold a class vote to choose the best idea. The class should then discuss how to put the idea into action both at school and at home.

In preparation for Lesson 2, ask the pupils to research 'recycled art' and find some examples to print out or save and share with the class. Pupils should also bring 10 clean waste items from their own homes in preparation for the next lesson. These can be any waste item they find; yogurt pots, lengths of string, cardboard boxes or cartons, toilet paper rolls, plastic wrapping, etc.

LESSON 2

Material required:
Flashcard of the Reduce, Reuse, Recycle logo, worksheet 2 (one copy per pair)., examples of waste objects used for art or to make something practical (actual objects or pictures), glue, scissors, paint, sticky tape, large sheets of card (A3).

METHODOLOGY

WARMER

- Show the pupils the Reduce, Reuse, Recycle flashcard. Elicit what the words mean and ask: 'Is it better to recycle or to reuse objects?' Ask pupils to justify their opinions. Then tell them that in fact it is better for the environment to reuse objects as much as possible, because we use up energy to recycle them. This energy use adds to global warming. Ask them to think of examples of ways waste objects can be reused (old clothes to make cloth bags or face masks, tyres to make playgrounds, old jars to make plant pots, etc.). Refer to the previous lesson and ask the pupils what they can remember about the Sustainable Development Goals. **How many are there? (17) What is their purpose? (To help improve our lives, our health and to help prevent damage to the environment through our actions) Which goals in particular focus on helping the environment and reducing waste? (Goals #11: Sustainable cities and communities and #12: Responsible consumption and production)**
- Show your pupils some examples of art made from recycled objects, either the objects themselves, if you have them, or pictures (search online for 'recycled art' for some examples). You could show them examples of Robert Bradford and Veronika Richterová's artwork. Robert Bradford makes sculptures out of recycled toys, and Veronika Richterová focuses on making artwork using plastic bottles.
- Alternatively, hand out worksheet 2 and ask them to discuss the images in pairs.
- For each picture or object that you show the learners, ask the following questions as appropriate:

- ***What is it?***
- ***What is it made of?***
- ***Do you like it? Why? / Why not?***

If necessary, scaffold their answers by encouraging the pupils to ask: 'How do you say … in English?' when they don't know a word or phrase. Write the language on the board for them to refer to during the lesson.

INTRODUCTION

- Remind pupils that waste objects can be reused to create art. If you didn't ask the pupils to do this for homework, ask them to do some research into waste art or recycled art during class time instead, technology permitting.
  This stage could be done individually or in pairs or small groups. They look carefully at the pictures they found during the research stage and find out the following information:

- ***Who made it?***
- ***What is it made from?***
- ***Where was it made?***

- Time permitting, each pupil or group can then present one of the examples they found to the class. If time is limited, ask the pupils to present to a partner or another group instead.
- Collect their pictures and create a classroom display. Each pupil should complete a card with the information they found out and add this to the display.
- If you didn't ask the pupils to bring in waste objects for homework, take the pupils to the school playground or a public space to collect litter. Each pupil should wear gloves and carry a bag to collect the litter in.

TASK

- The pupils should now create their own pieces of art from the objects they have collected. The pupils can choose to work alone or in pairs or groups of three for this.
- Ask the pupils to think carefully about the shapes and colours of their waste items as inspiration for their piece.
- Encourage them to embellish their work with the art supplies you would normally have in the classroom (paint, environmentally-friendly glitter, plasticine, and so on) if they like.

REVIEW

- Create an art gallery of waste art. Find a suitable place in the school to set up the gallery. This might be a hallway, the library, the assembly hall, playground or even the classroom.
- Each pupil or group is responsible for arranging their object in the 'gallery' and making and adding an information label which states what the art is made from, where the waste was found, what the piece represents or transmits and the names of the artists.
- Encourage the pupils to include information about the Sustainable Development Goals #11: Sustainable cities and communities and #12: Responsible consumption and production, and any of the facts that they can remember about waste from the Warmer quiz.
- Invite parents or other classes to visit the gallery.
- Encourage the pupils to stand by their creations in order to answer any questions the visitors may have.

REFERENCES

The sources for the Warmer quiz questions are as follows:

Question 1
Question 2
Question 3
Question 4
Question 5
Question 6

HAZ CLICK EN LA IMAGEN PARA ACCEDER A LA FLASHCARD