

Repair Cafe

Overall aims:

- Explore the concept of a circular economy
- Explore the concept of a linear economy
- Explore the 3 principles of a circular economy 1) design out pollution and waste, 2) keep materials in use, 3) regenerate natural systems
- Develop understanding of systems that support a circular economy
- Make predictions
- Enhance fine motor confidence
- Promote entrepreneurship
- identify opportunities to repurpose materials

2 Vocabulary - keywords

Repurpose, reclaim, restore, design, economy, regenerate,

3 Sustainable abilities developed

- Systems thinking
- Anticipatory competency
- Normative competency:
- Strategic competency:
- Critical thinking
- Self-awareness

4 Pillars of sustainability included

- Economic
- Ecological
- Social

5 STEAM domains

Science, Technology, Arts, Engineering, Math

6 Teaching methodologies/activity outline

This is best carried out at Saimhain, Halloween, end of October, the mid point between the the autumnal equinox (September 21st-23rd) and the winter solstice. At this point the



children will have been more familiar with the setting, will have completed some projects and may have some materials that are damaged or superfluous.

The teacher designates a documentarian and activates prior knowledge by using puppets/story/role play/digital resources to talk about what we do with materials when they become damaged or when we feel we no longer need them.

Ideally, a field trip to a Repair shop, Clothes Alterations shop, A Mechanic is organised.

Alternately, a repair man/electrician/plumber can visit the setting to demonstrate and talk about restoring and repairing materials.

The teacher gathers some damaged materials from the setting. A torn costume/blanket/pillow, a broken piece of furniture, a broken toy, a torn book, a jigsaw with a missing piece.

The teacher asks the children how these materials could be repaired and demonstrates stitching, taping, gluing, drilling etc.

Activating prior knowledge by bringing up the trip to the repair shop or visit from a trades person, the teacher asks the children what they could do in the setting to be able to repair their materials.

The teacher suggests that they set up a Repair Cafe where children, teachers/parents can restore materials.

The teacher employs the NASA best engineering model to design the Repair Cafe
ASK- children identify the problem, requirements that must be met and constraints that must be considered

IMAGINE- children brainstorm solutions and research ideas. They also identify what others have done.

PLAN- children choose two to three of the best ideas from their brainstormed list and sketch possible designs, ultimately choosing a single design to prototype

CREATE - children build a working model, or prototype that aligns with design requirements and is within design constraints.

TEST children evaluate the solution through testing, they collect and analyse data; they summarise strengths and weaknesses of their design that were revealed during testing

IMPROVE Based on the results of their tests, children make improvements on their design. They also identify changes they will make and justify their revisions

At the ASK stage, constraints include materials coming only from the setting, children's homes, charity shops and freecycle sites. The Repair Cafe must be designed so that it complies with safety regulations and has drinks and snacks for workers.. Additionally, a corresponding log book must be created.



7	<p>Expected learning outcomes</p> <p>The child will be able to:</p> <ul style="list-style-type: none"> ● carry out the building project using the NASA framework ● explain why they chose the materials, the site and the design ● explain the importance of troubleshooting, evaluating solutions and making improvements to design ● explain the Repair Cafe as a system ● Evaluate the effectiveness of the Repair Cafe
8	<p>Assessment</p> <p>Search for “teachable moments” throughout everyday routines and activities to explore opportunities to use the Repair Cafe. During class meetings, the children will discuss the effect that the Repair Cafe has on ongoing projects. What other systems could support a circular economy?</p>
9	<p>Equipment and materials to be used in learning unit (tools, ingredients etc)</p> <p style="text-align: center;">Glue, tape, sewing materials, pegs, vices, Screw driver, hammer, nails screws</p>
10	<p>Kind of setting - lab, kitchen, outdoor etc.</p> <p>Indoors or outdoors, workshop</p>
11	<p>References - source:</p> <p>https://www.repaircafe.org/en/everyone-can-learn-to-repair/</p>

