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# Stop motion

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Duration	<i>60 minutes, several weeks or even a whole school term</i>
Target group	<i>Students from the age of 8 and up</i>
Connection to curriculum	<i>This activity can be linked to many subjects in the curriculum, for example social studies, sustainability goals, environment studies, science and arts.</i>
Particulars	<i>The format of the work is very flexible although it results in a product that is a short stop motion film.</i>



## Outline

The goal is to make a stop motion on a theme related to sustainability. It could be climate change, poverty, food waste, consumption, generation of trash, etc. For the technical aspect, an ordinary smartphone and a tripod are sufficient.

The project combines a narrative aspect with hands-on production of the film setting, the materials used in the film and the taking and editing of the final product.

## Connection with sustainability

The theme of the stop motion is related to sustainability for example regarding the story line, materials used and scene design. Entry point could be a question to the students about what aspect of sustainability they want to work on. If the project is part of ongoing class work, this may be related to something that the students have already been doing (the tinkering activity is embedded into other activities). If the teacher is meeting the students for the first time, they open a dialogue on sustainability – or some aspect of sustainability such as climate change or food waste – and collect different ideas or questions on a board (whiteboard, flipchart, post-it stuck to a wall, etc.).



## Health and safety

Hazard	Controls
There are no particular risks to the activity	It is always good to have first aid kit in the classroom

## Essential materials

Item	Comment	Total
Carton (A3)	The simplest way to make a setting for the film is to draw and colour a reasonably large paper. A cardboard can also be used to create a green screen which can then be changed at will, for instance with pictures showing effects of climate change.	At least one for each group of 3 to 5 students
Colours (crayons, coloured pencils, paint, ...)	To paint the background and to create moving items for the film.	A variety of materials, some for detailed drawing and some for large background areas.
Fabric	Can be used as background.	
Magazines, newspapers, etc.	To cut out things for the story or the setting of the story	A variety of materials with different pictures, styles, etc.
Cardboard boxes	Could be ideal for creating a setting for the film.	At least one box for each group
Paper mass or clay	For more advanced work to create 3D figures or settings for the film.	
Lego, Playmobil, and other toys	If the film is going to use 3D figures, then using toys found at home can be a good source.	
Natural elements such as flowers, grass, stones, etc	If the film is going to use 3D figures, then creating the setting can be a good opportunity to explore the environment of the school.	
Various waste materials - containers, plastic packaging, boxes, etc.	For adding details to the setting and making a variety of materials available for the scenery.	
<b>Connectors:</b> rubber band, string or yarn, tape, glue stick, wire, paperclips, clothespins	To connect things together, either to create a background (scenery) or to have the characters move around.	



### Essential tools

Item	Comment	Total
Smartphone or iPad	Necessary to record the film	One for each group of 3 to 5 students
Tripod	Necessary to keep the camera stationary and in the same place during each scene.	One for each group of 3 to 5 students
Scissors, pliers, hammer, screwdriver and more that could be useful	Depending on the provided materials, tools to attach things to each other or make the background, etc. Things to create both a setting for the film and the 'characters' in the film.	Scissors for all and a toolbox accessible for all with various other tools.

The list of materials and tools is not exhaustive, it is important to have a variety of materials available. Adapt it to the materials/assignment you give the students.

### Preparation

The room needs to have distinct workspaces for each group, where they can both prepare materials for the film and do the filming. If the film is narrated, then there must be a separate quiet space where sound recordings can take place. Materials, such as paper and colors should be easily accessible to all groups and spread around the room on tables. For the filming, light must be sufficient and stable. The group is given time to explore the material offered to be used for the film.

Try out the technique so you know how shooting and stop motion work.



# Activity Plan

## Introduction

The facilitator tells the students they will be working in groups (3 to 5) to create a stop motion film about sustainability. Some students may not know what this is, so some explanation is in place. If the facilitator feels the students need to see an example of a stop motion film, show them several short clips exemplifying different ways of making a film so that the students do not get the idea that there is a one right way to do this.

Ask the students questions about what aspect of sustainability they want to work on. If the project is part of ongoing class work, this may be related to something that the students have already been doing (the tinkering activity could be embedded into other activities for example the balancing sculpture). If the teacher is meeting the students for the first time, they open a dialogue on sustainability – or some aspect of sustainability such as climate change or food waste – and collect different ideas or questions on a board (whiteboard, flipchart, post-it stuck to a wall, etc.).

The facilitator introduces a few basic steps in the process, such as:

1. deciding on a theme
2. making a narrative for the film
3. deciding on how to create the setting and the ‘characters’ of the film
4. filming
5. editing the film

## Managing the activity once it is in progress

Encourage students to think about different stages in the process and whether they want to complete one stage before moving to the next. Thus, one task for the facilitator is to help each group to complete each stage, such as creating a storyboard and helping them develop the issue which will be addressed by the film.

When the students are ready to begin filming, the teachers might need to help them with some technical aspects of the film, such as deciding on how many frames per minute they will make and how long the film will be. This helps the students calculate or estimate how much the moving elements in the film should move from one frame to the next.

Photographs or frames per second	photographs per stop motion
15	450 for 30 second movie
12	360 for 30 second movie
10	300 for 30 second movie

Several apps are available to make a stop motion movie from photos on phone or a padlet, such as Stop Motion Studio. Look for “stop motion” in the app store and see what comes up. Photos can either be taken directly within the app, or they can be imported into the app from another folder on the phone.



Before students begin to make their movie, advise them to make a short test movie, just to see whether things work. This will also give them a sense of how many frames they will need, i.e. how much change they should make from one frame to the next.

The facilitator supports the participants in their work and observes the work and process of each group. They are careful to browse around the area, watch each group closely, provide feedback, help, and support.

*Here are few guidelines you can use to support your students:*

- **Pose questions instead of answers:** how would you like to have the background? Is the camera stationary?
- **Create a supportive and inspiring environment:** I really like how you are using the material.
- **Help in case of frustration and failure in a positive and productive way:** why do you think this is not working for you?
- **Encourage learners to pursue personal interest:** don't worry about the others, remember what it is that you want to convey.
- **Encourage collaboration:** maybe you can ask the other group how that worked for them. Do you see something you would like to borrow from some other group.
- **Be aware of the time:** remind the students when there are 20 minutes left.
- **Untangle the knots:** If students seem stuck, ask them about their story. What do they want to tell? What is their main message? It might also help them to write it down or draw it.

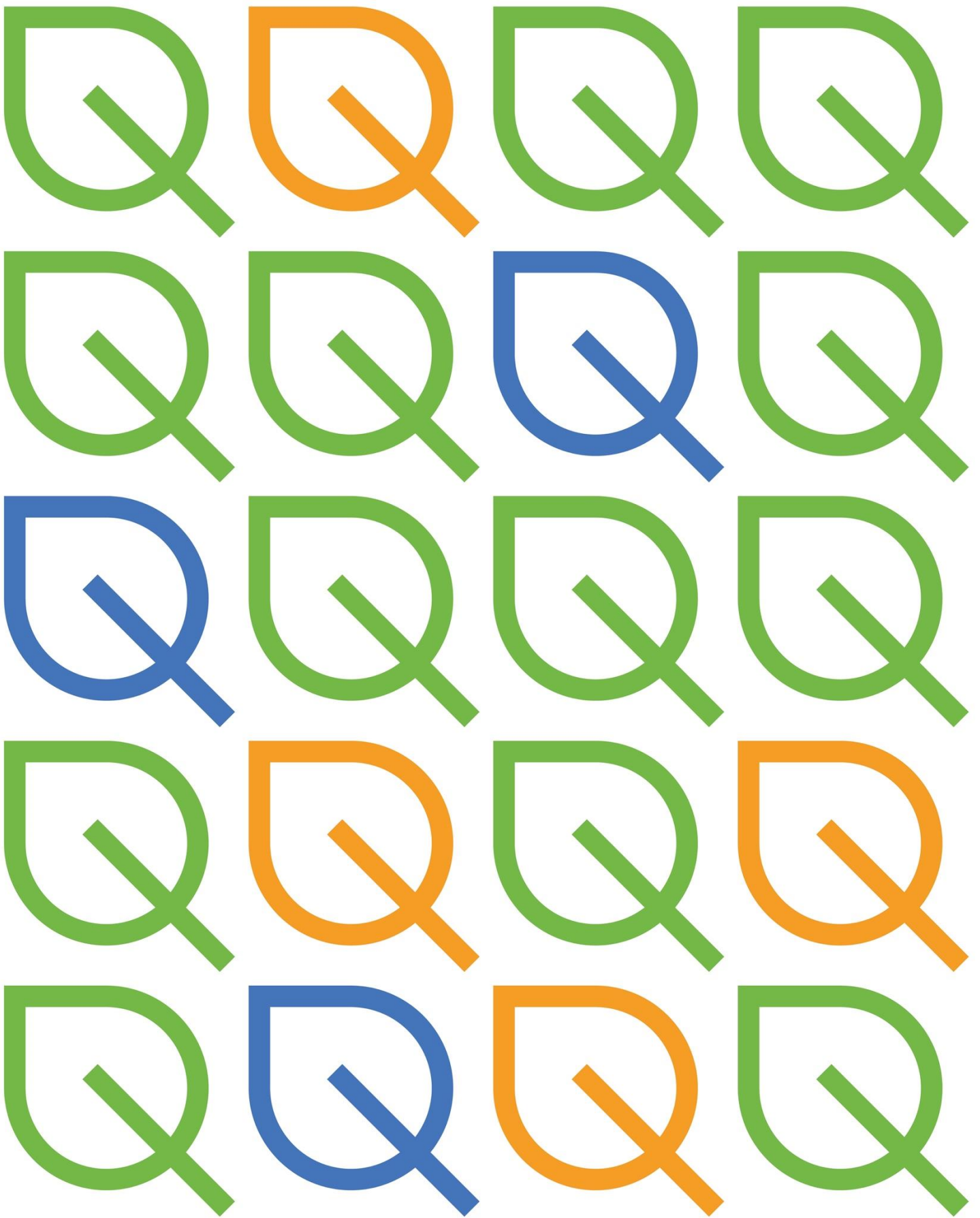
Remember to take pictures of the students doing the project, of the work process.

### Concluding the activity

At the end of the hour, everyone helps to clean up before each group shows and tells about their stop motion pictures. During the presentations keep these questions in mind:

- **How did you decide what the film should be about?**
- **What are you most happy with about this project?**
- **What was difficult and why?**
- **What sustainable goals do you think your stop motion represents?**
- **and most importantly - was the activity enjoyable?**

If possible, it would be nice to have the stop motion posted on the web to be able to show others and look at them together. Think about how you can clean up the activity in a sustainable way.



# Appendix



## Planning the story board

When planning the story, it is good to think about different aspects of the film that will eventually be produced.

The stop motion needs	We need to make or get (materials)
Scenery - where does it take place, background	
Characters - who are the main characters	
Props	

## Links to related material:

Various websites discuss stopmotion movies and explain how this method can be used and implemented in relation to different subjects:

*Exploratorium:* <https://www.exploratorium.edu/tinkering/projects/stop-motion-animation-explorations>

[Getting Started with Stop Motion Studio | Exploratorium](#)

*Icelandic webpage:* <https://veita.listfyriralla.is/title/stopmotion/>

*Tinkerlab:* <https://tinkerlab.com/easy-stop-motion-animation-kids/>

Learning by inquiry: [Easy and Creative Stop-Motion Animation Project for Kids - Learning by Inquiry](#)

## Examples of more complicated stopmotions:

*Eldhús eftir máli:* <https://www.instagram.com/stillakynnir/> - [2tilla \(vimeo.com\)](#)

*Plastic pollution:* [THE FISH by PES // Corona x Parley - YouTube](#)

## Examples of stop motion apps:

*Stop motion studio (Android, iPhone, iPad)*

*IMotion (iphone, ipad)*





# Colophon

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