POSSIBLE ACTION

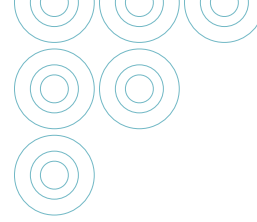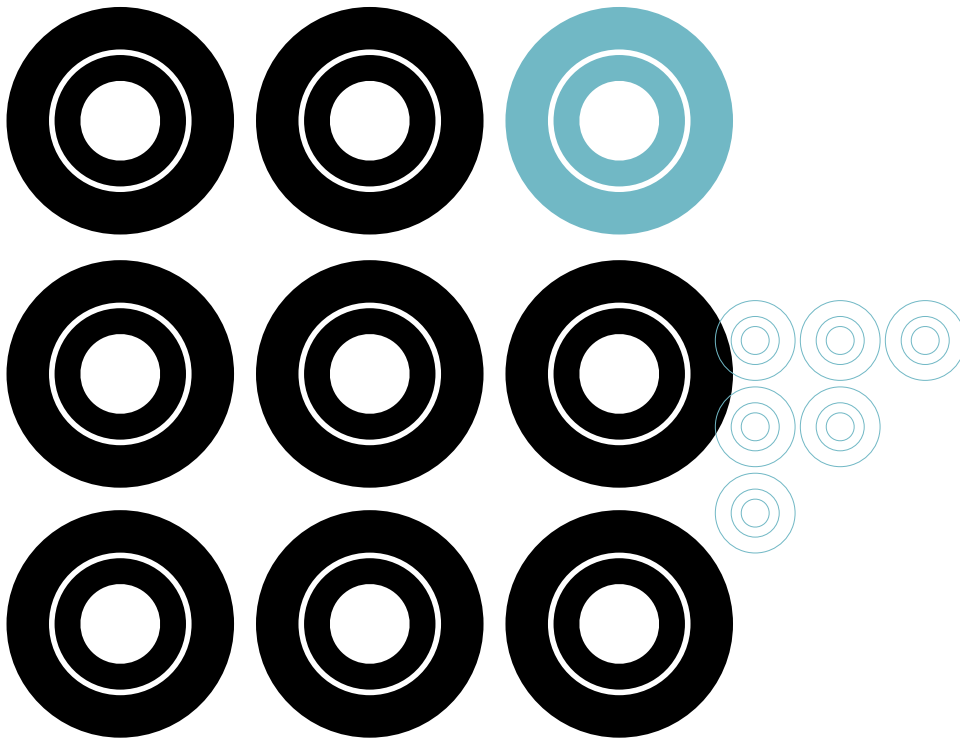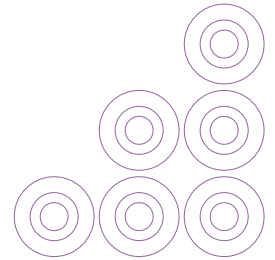**TARGET AUDIENCE** ▸ **14 to 18 years**

SHORT SUMMARY ▸ During this lesson, the students explore their motivation to take action themselves on the production, consumption and repair of electrical and electronic devices. Using examples and self-selected criteria, they think of ideas and possibilities to take action themselves and commit to developing and carrying out a particular activity.

REQUIRED PRIOR KNOWLEDGE ▸ Students are familiar with the basic principles and frameworks with regard to dealing sustainably with electrical and electronic devices (design phase, circular economy, R strategies, dormant devices, etc.).

MODULE 1

Interreg
North-West Europe
SHAREPAIR

djapo

België
partner in ontwikkeling

Vlaanderen
verbeelding werkt

5

POSSIBLE ACTION

DURATION ▶ 50 minutes
+ homework or 50 minutes of additional reading time

LEARNING OUTCOMES

› Students explore their motivation to take action themselves on the production, consumption and repair of electrical and electronic devices.
› Students commit to developing and carrying out a particular activity with regard to the production, consumption and repair of electrical and electronic devices.
› Students are able to reflect critically on their learning process.
› Students understand how their choices with regard to the production, consumption and repair of electrical and electronic devices can contribute to facilitating a more circular economy.

MATERIALS REQUIRED

› A whiteboard or flip chart
› Several photos, videos, screenshots of social media campaigns, reports, etc. of activities by young people that encourage or contribute in some way to repairing electrical and electronic devices, for example:
  › This video about students repairing broken phones at school.
  › This video about volunteers who organize repair events.
› One large sheet per group with three concentric circles (appendix 2)
› The 'Preparing an activity' worksheet (appendix 3)
› Two sets of the six reflection memory cards (appendix 4)

TO DO BEFOREHAND

› Read the Background Information document attentively. This text gives you the what, why and how of the subject and the didactic knowledge and insights you need to work with this module.
› Choose those elements from the module that suit your students best and are most compatible with previous and planned lessons.
› Print the reflection memory (appendix 4) twice and cut out the 12 reflection memory cards.

LESSON PLAN

1 – STIMULUS

Show the class one or more photos, videos, screenshots of social media campaigns, or reports, etc. of activities by young people that encourage or contribute in some way to repairing electrical and electronic devices.
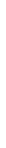
Briefly describe the activity or activities, for example:

› Supporting the Repair Everywhere campaign by repairing a device in a creative way and sharing a photo or video of this on social media.

Discuss the activity or activities, as well as the goal and motivation of the young people depicted.

› How does this activity make you feel? Why do you think that is?
› What is the goal of this activity? What is the target audience of this activity? Do you think this activity will achieve its goal?
› Do you think this activity was successful? What was a success and what wasn't?
› Would you like to participate in this activity yourself? Why or why not?
› Can we think of an activity and develop it to realize the same goal?
› What goal would you like to achieve? What goal are you thinking of?
› Can we think of an activity for this and develop it ourselves?
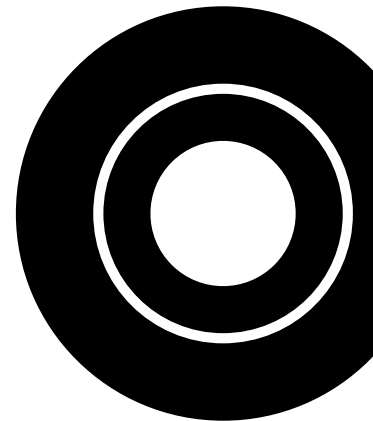
TIP

Summarize what was 'successful' and 'unsuccessful' about the activity according to the students and write this down in two separate columns on the whiteboard or flip chart. Leave the columns there for inspiration later, when the students are formulating criteria during step 2 of the *Bullseye* method.

BACKGROUND INFORMATION

Every activity must be goal-oriented. Students learn most if they don't simply participate in an activity (for example the Repair Everywhere campaign), but devise, develop and carry out an activity themselves. This makes them competent for action and helps them build confidence in their own capacity to make choices and shape society.
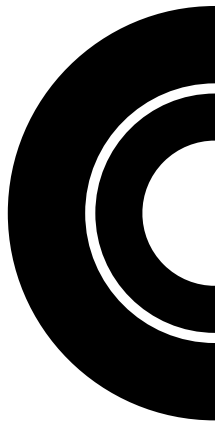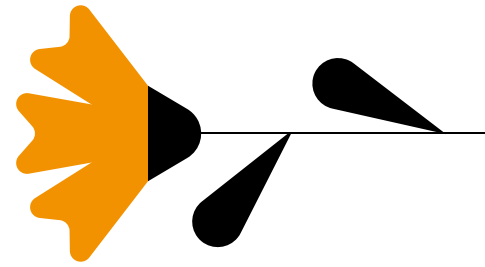
2 – CORE

## 2.1 – Formulating critical thinking questions

Together with the students, formulate several critical thinking questions about choosing an activity that encourages or otherwise contributes to repairing electrical and electronic devices. For each critical thinking question, complete the following sentence:

› What can and do we want to do as a class (or group) to …/to prevent …?

The following are examples of possible critical thinking questions:

› What can and do we want to do as a group (or class) to encourage other students at school to opt to repair electrical and electronic devices as their first choice?
› What can and do we want to do as a group (or class) to convince other students at school of the importance of repairing electrical and electronic devices?
› What can and do we want to do as a group (or class) to ensure that electrical and electronic devices are designed to make repairing them easy and cheap?
› What can and do we want to do as a group (or class) to extend the lifespan of the electrical and electronic devices in our school?

Write down the critical thinking questions on the whiteboard or flip chart.
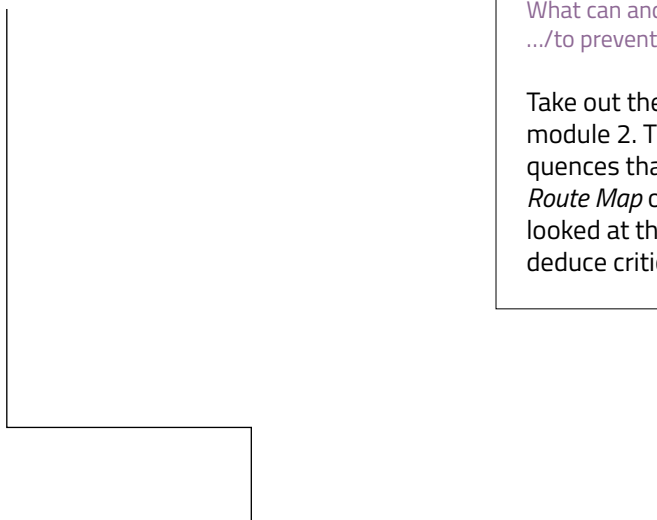
TIP

Activate the students' prior knowledge from previous lessons and ask questions about their interests and about subjects they feel strongly about.

Turn the causes (and effects) in the right top corner of the *Choice Quadrant* into critical thinking questions, i.e., the causes (and effects) that appear between 'I want to take action on this' and 'I think we could have an impact on this'. Do this by completing the following question for each case: What can and do we want to do as a class (or group) to …/to prevent …?

Take out the *Route Map* and/or stock photos from module 2. The positive and negative consequences that the students wrote down in the *Route Map* or the feelings they felt when they looked at the stock photos could help them to deduce critical thinking questions.

MODULE 4

MODULE 2
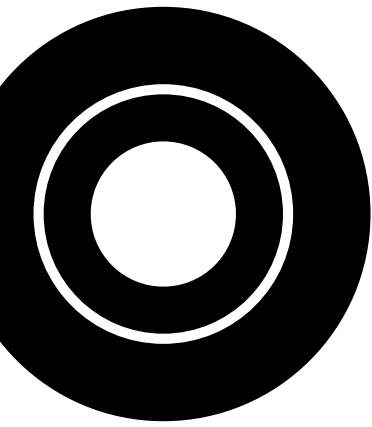
Keep editing each critical thinking question until all the students agree with the goal of the activity. Try to reach consensus by ascertaining which students agree and which don't (yet).
Everyone who agrees with this critical thinking question, raise your fist.
Everyone who disagrees with the critical thinking question and wants to add something to it, raise your open hand.

Listen to what the students want to add and reformulate the critical thinking question on the basis of their feedback. Repeat and reformulate the critical thinking question until all the students raise their fist.

2.2 – Bullseye

Use the *In de roos (Bullseye)* (© Djapo)[1] method to teach students to make considered choices on the basis of pre-defined criteria.

Divide the students into groups of three to six students. Tell them that every group will be using the *Bullseye* method to answer one of the critical thinking questions on the whiteboard or the flip chart. During this exercise, the students explore what they think are the most important criteria for an activity that encourages or otherwise contributes to the repair of electrical and electronic devices. They then come up with new activities on the basis of these criteria and select an activity that they are going to develop and put into practice. This helps students become aware of what is important to them about action, which in turn will make them more motivated and make the activity they have devised more effective.

Give every group a big sheet with three concentric circles on it (appendix 2). Every group democratically chooses one critical thinking question and writes it down at the top of the sheet.

Use a stopwatch to set the time for each step in the work method, for example five to ten minutes per step. Ask the **critical thinking questions** relating to every step in class or write them down on the whiteboard.

While doing the *Bullseye* exercise, use language that emphasizes the students' thinking processes. This helps them become aware of these processes, to learn to articulate them and to register their utility. Use words such as 'brainstorm', 'coming up with ideas', 'defining criteria', 'reasons or criteria for a good idea', 'testing ideas', etc.

1 ~ *In de roos (Bullseye)* is a visual thinking instrument by Djapo which also trains creative thinking. Creative thinking means generating other ideas than those you would normally have. It means departing from the well-trodden pathways in your brain, and so discovering new connections between two elements or contexts that you had not seen before. For more on creative thinking, visit www.djapo.be.

Step 1 – Coming up with ideas

Ask the students to suggest ideas to answer the critical thinking question and write them down below each other on the left of the sheet. Ask questions to stimulate the process of thinking of ideas.

› In what ways could we … ?
› How can someone … ?
› Who has an idea about how to … ?
› We want to … How could we do this?
› Where, with whom and when could we … ?
› What … can we choose/do?

Ideas can be low-key and linked to existing initiatives, for instance:

› Attending a Repair Café.
› Setting up a campaign to promote a Repair Café among other students.
› Writing a communications piece to get people to sign the #Right to Repair manifesto: "this is why our class/school is signing …".
› Designing a personalized poster to encourage students to repair broken electrical and electronic devices.

But ideas can also be ambitious or original, for instance:

› Collecting discarded electrical and electronic devices from other students in school and seeing which ones can still be repaired.
› Organizing a mini Repair Café for broken electrical and electronic devices that belong to other students in school, independently or in cooperation with a Repair Café.
› Organizing a repair competition or a hackathon between classes or schools.
› Organizing a stand at the school fair with an original repair game.
› Getting students in technical subjects to lead a repair workshop for other students.
› Going to a residential care facility to repair electrical and electronic devices together with the elderly residents.
› Recording or photographing an attempted repair by the group and posting the experience and resulting tips and tricks on YouTube or on a blog.
› Making an inventory of all dormant devices that students have at home.
› Cycling around the neighbourhood with a cargo bike to pick up dormant devices and bringing them to a recycling centre.
› Organizing an online hunt for spare parts.
› Collecting repair stories in the village, town or city and sharing them on a blog or on social media.
› Collecting broken devices and dumping them (temporarily!) outside parliament.
› Disassembling broken devices and using the parts to create a work of art, or organizing a photo exhibition or another type of exhibition on the design phase and disassembly options of electrical and electronic devices.

TIP

Find the Repair Cafés near your school on this map. This website has a guide to organizing your own Repair Café.
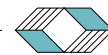
DIFFERENTIATION

If coming up with and carrying out activities is too ambitious for your students, you could consider preparing a simple activity or hunt yourself, and visit a local repairer with your class. For example: ask the students to look - under your guidance - for the most affordable and closest repair option for a broken school laptop.
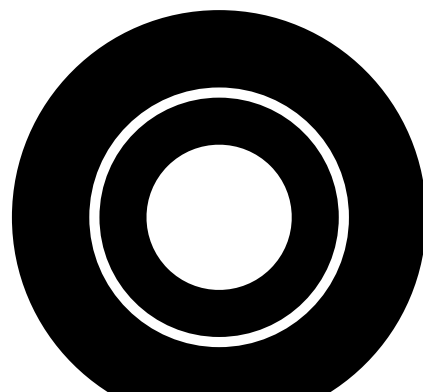
Step 2 – Defining criteria

The students define criteria that the ideas will have to meet. They write down their criteria below each other to the right of the column with the ideas.

› What criteria should your ideas meet?
› What makes an idea a good idea?
› What are good conditions to set for ideas?
› What characteristics should your ideas have?
› How can you determine whether an idea is good or bad?

Propose two or three criteria yourself to help the students and their thinking process. A few examples of criteria:

› The activity has a young target audience.
› The activity involves all students in our year.
› The activity involves local residents.
› The activity is innovative.
› The activity has a lasting impact.
› The activity can be shared on social media.
› The activity can be prepared and carried out without the help of a teacher or teachers.
› The activity must not cost more than … euro.
› The activity takes place within the school building.
› The activity is prepared and carried out during school hours.

The students then democratically select three criteria that are most important to them. Encourage the students to listen to one another's views first. The students circle every criterion they select with a different colour.
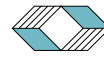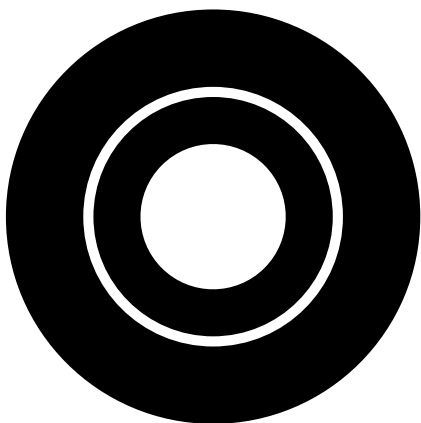
DIFFERENTIATION

Set a few criteria yourself as teacher to keep the ideas feasible, such as limitations in time, place, budget etc.

TIP

It can be challenging to define criteria. If inspiration proves lacking, you could remind the students of what they wrote down in the 'successful' and 'unsuccessful' columns earlier. Ask them what the good or not-so-good aspects of each idea are. Then transform these into criteria.

› What do you find interesting about this idea?
› Everyone can take part in it.
› So should we write down as a criterion that everyone should be able to take part in it?

› What do you think is not so good about this idea?
› It costs a lot of money.
› So should we write down as a criterion that it has to be cheap?

ATTENTION!

Make sure that everyone interprets the criteria in more or less the same way. 'Comfortable' can mean something different to every student. If any criteria are formulated ambiguously, ask students to look for an alternative that can be judged more objectively.

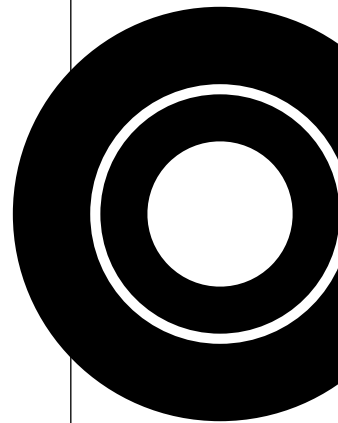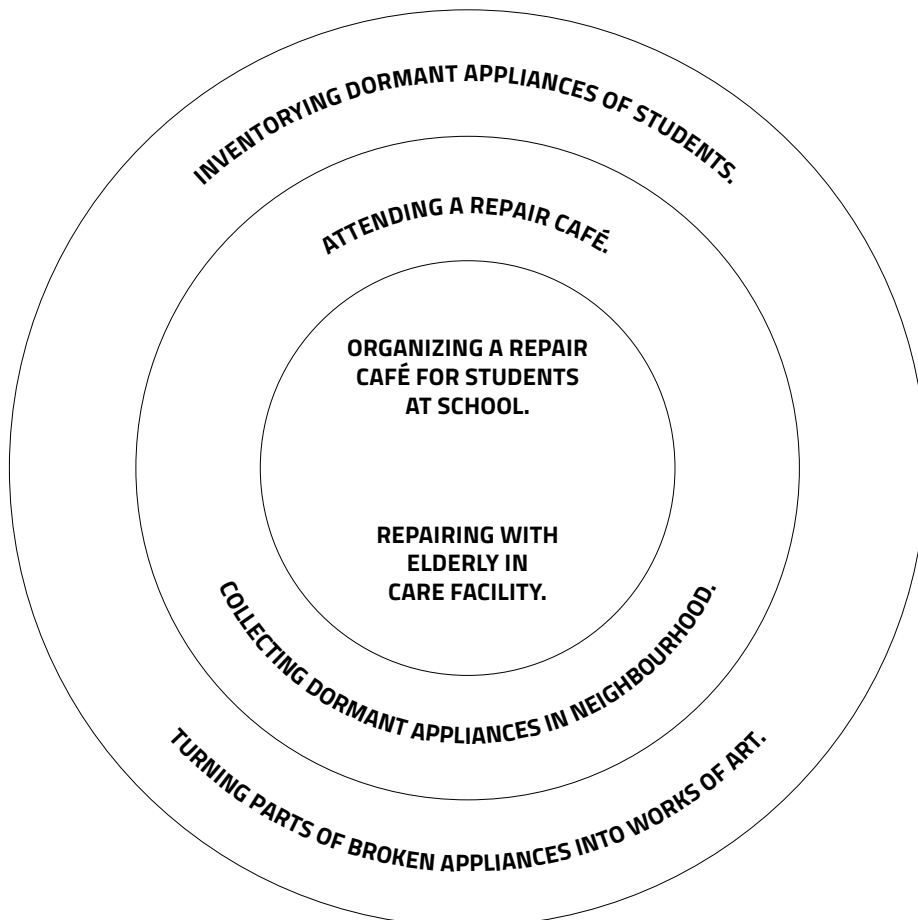### Step 3 – Checking the ideas against the criteria

Explain the following step to the students.

You now have a list of ideas you've come up with and you've defined what criteria these ideas will have to meet. So now you're going to check each idea against the criteria that we have selected. You do this by placing a tally mark behind an idea for every criterion it meets. Write ideas that have no tally marks outside the circles. Write ideas that have one tally mark in the outer circle, ideas with two tally marks in the second circle, and ideas with three tally marks in the bullseye.

The students then check every idea against every criterion. If an idea meets the criterion, they put a tally mark against it in the colour of the criterion. This allows them to see quickly afterwards what criteria the idea meets. Once the tally is finished, they can write every idea in the right circle.
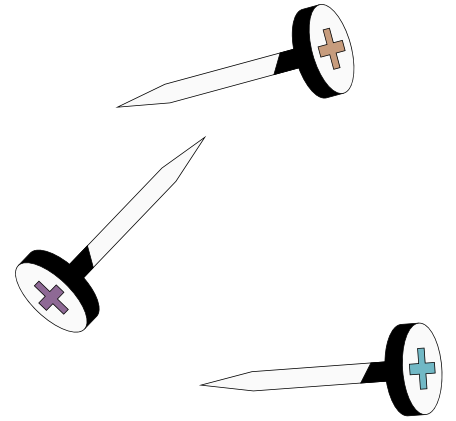
THE ACTIVITY HAS A LASTING IMPACT.
THE ACTIVITY CAN BE SHARED ON SOCIAL MEDIA.
THE ACTIVITY INVOLVES LOCAL RESIDENTS.

INVENTORYING DORMANT APPLIANCES OF STUDENTS.

ATTENDING A REPAIR CAFÉ.

ORGANIZING A REPAIR CAFÉ FOR STUDENTS AT SCHOOL.

REPAIRING WITH ELDERLY IN CARE FACILITY.

COLLECTING DORMANT APPLIANCES IN NEIGHBOURHOOD.

TURNING PARTS OF BROKEN APPLIANCES INTO WORKS OF ART.

Step 4 – Assessing the result

Let the students look at the result and read the ideas that have ended up in the inner circle aloud. If there are no ideas in the inner circle, then mention this. Ask the students if they are satisfied with the result, and if not, why not.

› Are you satisfied with the result?
› Did any results surprise you?
› Are there any ideas outside the bullseye that you think should be in the bullseye?
› Looking back, did you choose the right criteria?
› Are there any ideas that could be adapted so that they can be moved closer to the center?

Let every student put one or more tally marks against the ideas they are most pleased with. If there are ideas that have many tally marks but are not in the bullseye, you could try to adapt these ideas so that they can be moved to the inner circle.

Step 5 – Reflecting on the thinking process

With the whole group, go over the steps the students have taken and ask about their experiences with regard to their thinking process.
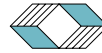
› You started on the basis of a critical thinking question. What did you make of this question?
› You've been coming up with and discussing ideas together. Did that go smoothly or not?
› Were there obstacles or difficulties when you were thinking of possible ideas?
› If you were able to come up with ideas quickly, why was that?
› Once we had the ideas, I asked you to come up with criteria. How easy was it to define those?
› Then your group selected three criteria. How did that go?
› Then you checked the ideas against the criteria. Did you understand what this method was about? Did you notice anything in particular during this process?
› Did *Bullseye* help you to define your research question? Why or why not?

Take out the *Route Map* from module 2 and check the ideas for activities against the positive and negative scenarios in the *Route Map*.
› Which positive effects in our *Route Map* would this activity contribute to?
› Could our activity have any negative, undesired effects?

2.3 – Action

Each group of students chooses one idea to develop and carry out as an activity. The groups together draw up a plan for their activity (division of tasks, deadlines etc.) using the worksheet and the questions on it (appendix 3).

The groups of students can carry out their activity as homework, or during class, either under the guidance of the teacher (50 minutes of additional time required) or independently.

Ask the students to gather as much evidence as possible during their activity – and even during the entire course – for instance by regularly taking photos. Ask them to bring as much evidence as possible to the classroom and hang it in various places in the room.

3 – CONCLUSION

Use the *Reflectiememory (Reflection Memory)* (© Djapo) method. During this exercise, the students reflect critically on their learning process.

› How have I been learning?
› What have I learned?
› What can I do with this?

Repeat and briefly go over everything you have done in the class during this lesson or series of lessons. Place the twelve reflection memory cards (appendix 4) upside down on a table in random order. Ask a student to turn over two cards, then ask another student to do the same, etc. Whenever a student turns over two identical cards, ask them to read the reflection question on the cards aloud.

Ask another student to choose a piece of evidence and stand next to it. This student then tries to answer the reflection question on the basis of the evidence chosen. Keep playing this game of reflection memory until all questions have been answered.

Keep asking further questions and insist that the students explain their answers.

› What did you do during the preparation and execution of the project?
› How did the collaboration with other students go?
› What went well? What didn't go so well?
› Why did you feel this?
› What did you feel during the project? Why?
› What did the others feel, do you think?
› Why did you feel this was missing?
› What would you have done differently?
› Why did this motivate you during the process?
› Why are you keen to tell others about this?
› Why are you keen to do this in the future?

During this discussion, also encourage the students to reflect on the impact of their activity.

› Do you feel you've made an impact on your surroundings by carrying out your activity?
› Had you expected this?
› How could your activity have had an even greater impact?
› Do you feel that what you do somehow contributes to society?
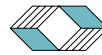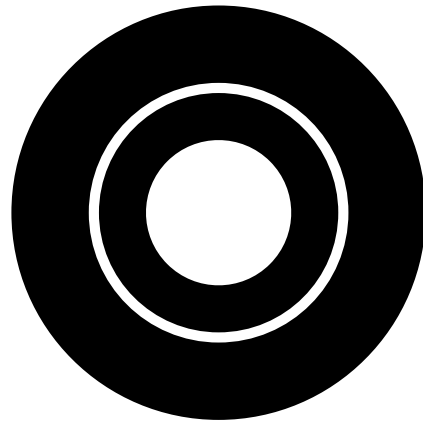
DIFFERENTIATION

If class dynamics make group reflection challenging, you could consider lowering the threshold for the students to reflect honestly and openly by doing this exercise in small groups. Or distribute the reflection cards among half the class. The other half then moves from one dialogue partner to another every two minutes. In this way, every pair of students reflects on another reflection question every two minutes.
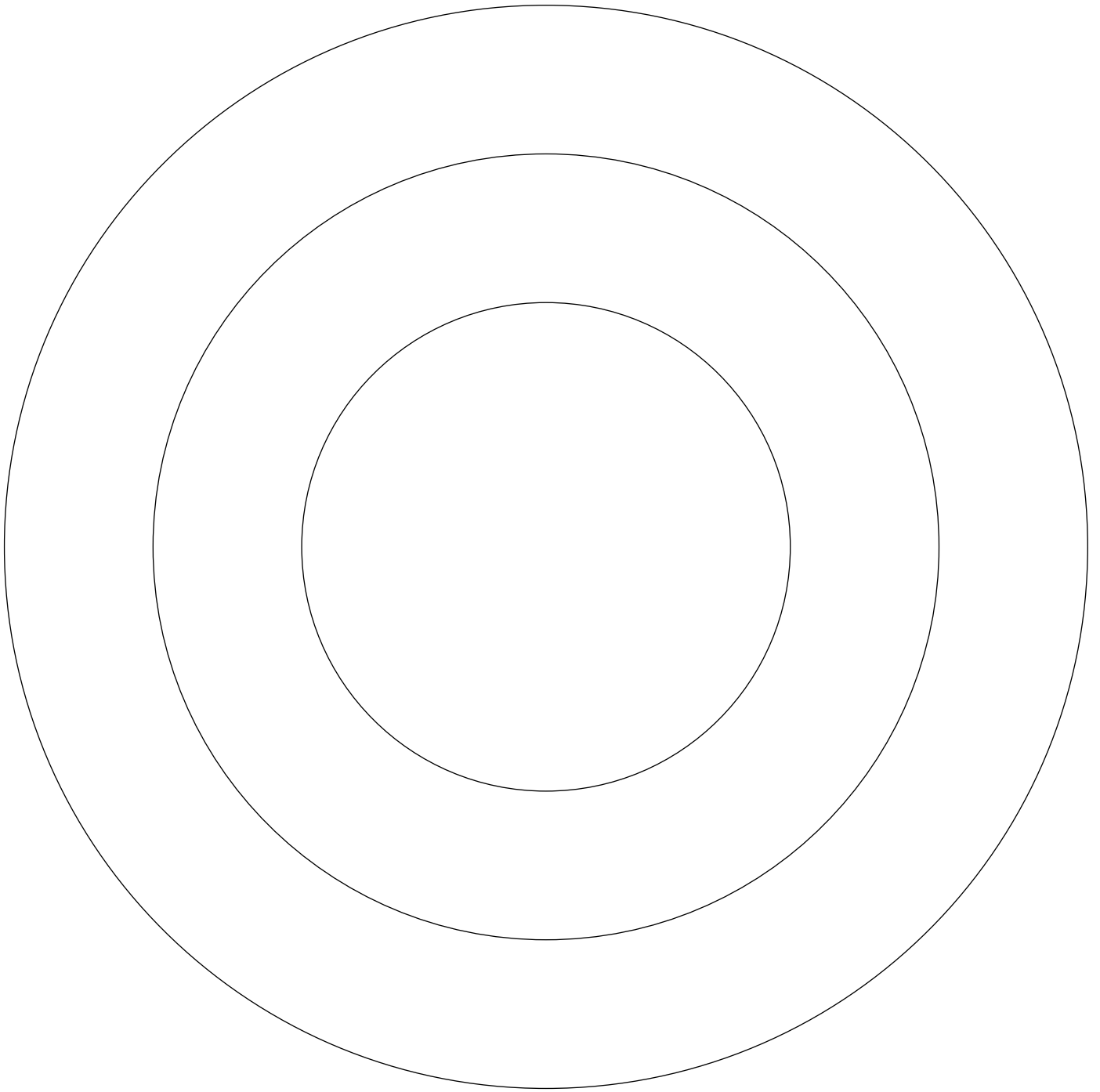
DIFFERENTIATION

If you start the series of lessons with this module, the experiences and findings of the students during this lesson could inspire them during other lessons to adopt opinions, explore the impact of their actions, come up with interesting questions, examine underlying causes, etc.

MODULE 2
MODULE 3
MODULE 4

Names of group members

Member 1 ....

Member2 ....

Member 3 ....

Member 4 ....

Member 5 ....

Member 6 ....

Idea for an activity that we want to develop and carry out:

....

....

....

Practical issues

When are we going to carry out our activity?

....

....

Where are we going to carry out our activity?

....

....

What is the target audience for our activity?

....

....

What parts of our activity are easy to organize? What parts are more difficult?

....

....

....

....

....

Whose help do we need to carry out our activity?

....

....

What tasks have to be done to prepare properly for our activity?
What materials do we need for this?
Which member of the group is in charge of carrying out this task?
When must the task be finished (intermediate deadlines)?

Task number	Task	Material	Person in charge of task	Deadline
Example	*Ask the principal's permission to … during playtime*	*A polite email*	*Name of student*	*… / … / …*

What tasks have to be done to carry out our activity?
What materials do we need for this?
Which member of the group is in charge of carrying out this task?
When must the task be finished (intermediate deadlines)?

Task number	Task	Material	Person in charge of task	Deadline
Example	*Involve the other students ...*	*Poster / a notice on the online educational platform*	*Name of student*	*... / ... / ...*

What did I like about this project?

What did I feel was missing in this project?

What will I be bringing from this project to future activities?

What did I learn from this project?

What motivated me during this project?

What would I like to tell others about this project?