MAKE IT GREEN

TEACHING UNIT 2

"GREEN PATROL MISSION"

LEROY MERLIN
Da vida a tus ideas

LET'S BUILD A
BETTER ENVIRONMENT

PREPARATION OF ACTIVITY 2

Once they have learned the concepts by playing the game beforehand, the second Teaching Unit consists of **observing and investigating as a group all elements that can be changed or improved in their most immediate surroundings.**

In teams (we suggest they remain in the same teams as for Activity 1) they become “green patrollers”.

With the questionnaire-mission that you can download from the competition website, by means of data collection they will investigate the level at which their class, school, neighbourhood or house is at in terms of environmental and sustainable awareness.

For this, we have prepared various **missions** for you so that you can select them **in accordance with the level and age of your pupils.**

1. PREPARATION PRIOR TO STARTING THE MISSION

The students are about to begin checking their surroundings with data.

Explain to them that, in groups (the same as in Unit 1), they are going to patrol their most immediate environment, with the aim of detecting shortcomings and any improvements that can be made using the simple action of observation and analysis.

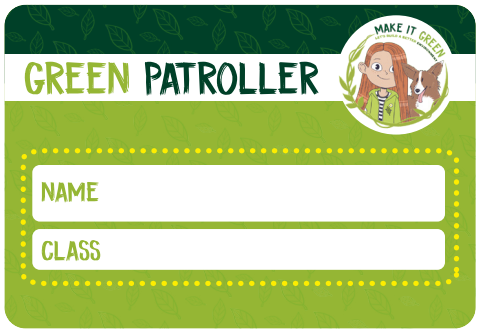
This will help build their autonomy and ability to assume responsibility. They will feel part of a greater project in which they are the real protagonists and agents of change.

Before starting the activity, **print the questionnaires**, one for each team.

Prepare them to leave the classroom to start their green mission. To distinguish them from other students, we recommend that they put on the **wristband** that we have sent you beforehand, along with the **identity card** that you can download from the competition website.

Appendix 1, CAT. A and B

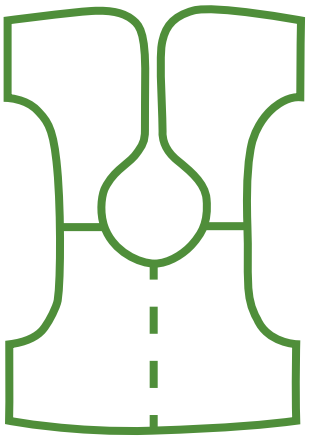
Appendix 2



Wristband

Failing this, or as an extra, you can also make them an optional **vest**. There is a pattern on the website to make it with green felt if you wish.

VEST (optional)



On the competition website you can find a pattern for a simple vest you can make, and which will make their research as “Green Patrollers” much more exciting.

The students can make their own vests during a lesson beforehand - perhaps in an art class, for example.

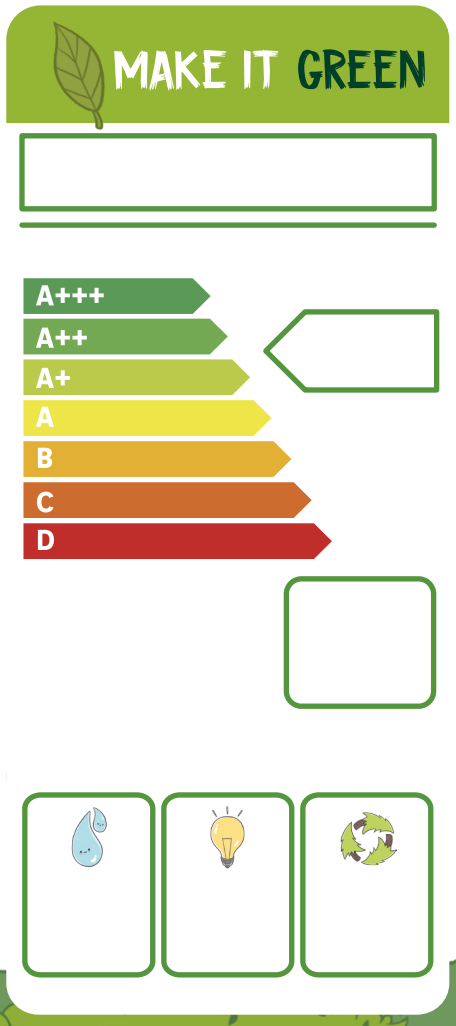
They can make it with green felt, recycled material or even from an old shirt where they cut the sleeves and the front, converting it into a vest.

Remember that in a sustainable world, recycling is crucial. Help to give old or unused items a new use! Once they have their vest, the students can decorate it with badges or draw on it with marker pens to personalise it.

MATERIALS NEEDED

- Green felt.
- Scissors, chalk to mark the pattern.
- Stapler to “sew”.
- Once made, the children can decorate them as they wish with marker pens, badges, etc.

ENERGY LABELS (recommended for children aged 9 to 11)



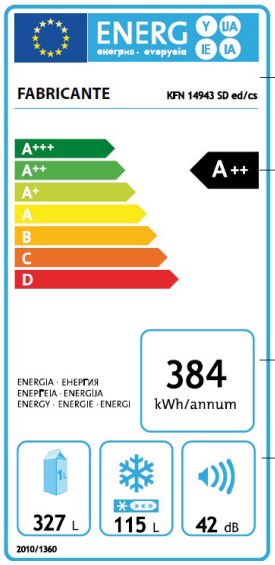
In this second Teaching Unit, we suggest that students aged 9 onwards, once they have detected shortcomings during their GREEN MISSION, complete the energy labels that we have provided for you in the downloadable material on the website.

In this way they can indicate all elements that can be improved to be more energy-efficient, such as, for example, radiators, window insulation, etc. and evaluate the level of efficiency from A+++, etc.

We have based them on the Energy Label model that has helped consumers understand the energy efficiency of household appliances since 1995.

The A+ to A+++ classifications are the most efficient. Those categorised A and B are of moderate consumption.

And those classified C and D are those that most consume.

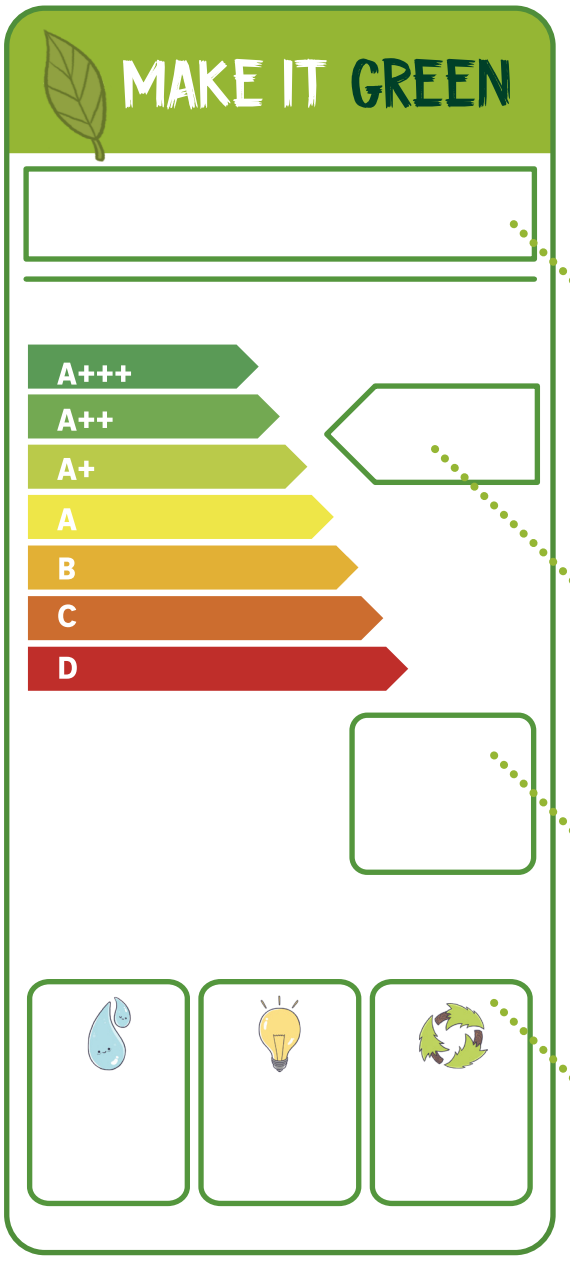


Nombre del proveedor o marca e identificador del modelo.

Clases energéticas
Se mantiene la clasificación mediante letras y colores, pero se añaden dos clases más **A++** y **A+++** para designar a los aparatos de mayor eficiencia.

Consumo de energía anual, basado en resultados de ensayo normalizados durante 24 horas.

Los nuevos pictogramas



In this space, pupils write down the element to be classified: a radiator, a classroom, services, etc.

In this space, pupils classify the element according to its energy rating.

In this space, pupils write down the energy consumption per day/week.

WATER I ENERGY I RECYCLING AND THE ENVIRONMENT. Here, the pupils write down the measurement of each one.

2. MISSION ROUTE. Children aged 7 to 11

Once they are ready and decked out as “Green Patrollers”, give each group the mission corresponding to them.

We have divided the missions into two groups:

- Category A: Children aged 7 to 9.
- Category B: Children aged 9 to 11.

With their identity card and green vest, they become patrollers, starting out on their mission to **identify shortcomings in their surroundings**, using a questionnaire (to analyse) and energy labels for those aged 9 and over (to identify).

When they have finished the route, they return to class to analyse the data collected.

Give them the energy labels (recommended for children aged 9 to 11) so they can fill them in.

You will see in the questionnaire that we have left space so that the students can note down the results of their findings.

Once they have carried out the mission, the students return to class and discuss their conclusions and proposals for development and improvement.

We recommend that, in accordance with the age of the children, you choose the route they should take: you could start in your classroom, adjoining corridors, toilets, etc.

And if you are OK with it, they could also do their mission in the playground, other classrooms, the library, dinner hall, etc.

The older ones can even take their mission out into the street, their home or their neighbourhood, as a first step before their investigation project!

7 WEBOGRAPHY

Energy label

https://www.iberdrola.es/clientes/hogar/eficiencia/ahorro/etiquetado-electrodomesticos
http://www.etiquetaenergetica.com/
http://www.idae.es/uploads/documentos/documentos_curso_electrodomesticos_3de3_fb864ddb.pdf

Missions

ECOLOGICAL WATERING SYSTEM

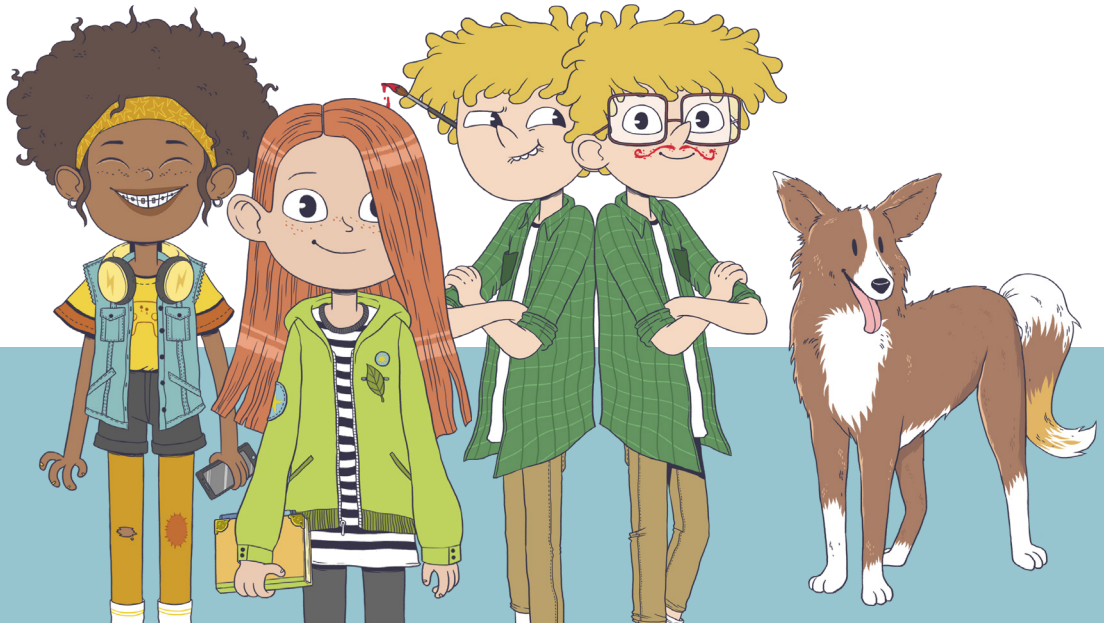
http://erenovable.com/riego-por-goteo-casero/
http://es.wikihow.com/hacer-un-irrigador-por-goteo-con-una-botella-de-pl%C3%A1stico
http://ecoinventos.com/como-usar-una-botella-de-vidrio-como-sistema-de-regadio-autonomo/

ECOLOGICAL WATER FILTER

http://cidta.usal.es/cursos/agua/modulos/Practicas/Filtracion/filtro.html

IDEAS FOR RECYCLING BOTTLES, CARDBOARD TUBES AND EGG BOXES

http://ecoinventos.com/como-hacer-un-jardin-vertical-casero/
http://agronoticias2012.blogspot.com.es/2016/10/reciclaje-maceteros-ecologicos-con.html
http://elblogverde.com/16-ideas-para-reciclar-botellas-de-plastico/
http://mrmannoticias.blogspot.com.es/2012/04/ecoideas-uso-alterno-para-las-botellas.html
https://mejorconsalud.com/como-reutilizar-rollos-de-carton/
http://www.guiainfantil.com/galerias/actividades-para-ninos/12-manualidades-de-papel-higienico-para-hacer-con-ninos/
http://www.manualidadesartesanas.com/tag/manualidades-con-rollos-de-papel/
http://ecologismos.com/ideas-para-reciclar-hueveras/



INSTRUCTIONS FOR THE TEACHER

DEVELOPMENT OF MISSIONS

This document presents simple instructions to help you carry out the second activity.
In the “Green patrol mission” your students will observe and analyse their surroundings.
These instructions will inform you whether you need to prepare any material prior to the start of the session.
Look for the specific instructions for your year: you can also combine them, do all of them or only a part of them, and... build a better environment with Vega and her gang!

CATEGORY A: Students aged 7 to 9/3rd and 4th Primary.

1. RECYCLING AND THE ENVIRONMENT MISSION

Download the templates of Vega and her gang from the competition website, by selecting the bin corresponding to the waste. The students colour in the template, decorate it and fix it to each bin in the playground, corridors and round the school (Appendix 5).

2. WATER MISSION

Before beginning the mission, remember to count the number of cisterns in the school and tell your students to bring from home 2 x half-litre plastic bottles for each cistern to complete the mission.

Option 1: reduce the water in the toilet cistern.

Give prior notice to the head of the school and the maintenance person that your students, as environment ambassadors, will give them bottles so that the maintenance staff help them put the bottles in the cistern.

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Remember that there will be 2 x half-litre plastic bottles full of water for each cistern.
With this simple act, you will save between 2 and 4 litres with every flush.

Option 2: ecological watering system.

Show your group how to make this simple watering system.
The step-by-step instructions are in the following tutorials:

http://erenovable.com/riego-por-goteo-casero/

http://es.wikihow.com/hacer-un-irrigador-por-goteo-con-una-botella-de-pl%C3%A1stico

http://ecoinventos.com/como-usar-una-botella-de-vidrio-como-sistema-de-regadio-autonomo/

3. ENERGY MISSION

Before starting the mission and to help locate breaks in insulation and detect drafts of air, we suggest this simple tip: show your group how to make a small paper brush so that the bristles move in a draft.
This will help the students locate air leaks.

CATEGORY A: Students aged 9 to 11/5th and 6th Primary.

1. RECYCLING AND THE ENVIRONMENT MISSION

Save this second part of the mission for the Art class or session, to do this creative activity.
Remember that in the Webography of Activity 2 we have given you lots of ideas to recycle these recovered items, water bottles, egg boxes and cardboard tubes.

2. WATER MISSION

Before beginning the mission, remember to count the number of cisterns in the school and tell your students to bring from home 2 x half-litre plastic bottles for each cistern to complete the mission.

Option 1: reduce the water in the toilet cistern.

Give prior notice to the head of the school and the maintenance person that your students, as environment ambassadors, will give them bottles so that the maintenance staff help them put the bottles in the cistern.

Remember that there will be 2 x half-litre plastic bottles full of water for each cistern. With this simple act, you will save between 2 and 4 litres with every flush.

Option 2: ecological water filter.

You will find all the information on how to make a water filter in the following tutorial:

http://cidta.usal.es/cursos/agua/modulos/Practicas/Filtracion/filtro.html

Before starting, we suggest that together with your students you have a brief chat about limited water resources.

3. ENERGY MISSION

Before starting the mission and to help locate breaks in insulation and detect drafts of air, we suggest this simple tip: show your group how to make a small paper brush so that the bristles move in a draft.
This will help the students locate air leaks.

For the second part of this mission, you can simplify the collection of information using a table listing the objects, and the children mark them with an X whilst walking to school. Later, in school, they can complete the mission (type of energy and observations).

You can also take photos of the school environment and project them in class, so that the children can identify each element or piece of equipment, to later complete their mission.

GREEN PATROLLERS MISSION

When you throw away rubbish at school there are 3 bins to separate waste and help recycle.

LOOK ROUND THE SCHOOL TO FIND THESE BINS!

ZONES	GREY ORGANIC	YELLOW PLASTICS	BLUE CARDBOARD AND PAPER	Are they clearly marked?
Class				
Corridors				
Playground				
Library				
Dinner hall				
Others				

OK - you've found the coloured bins. Now you have to identify them with drawings that will help your colleagues locate and identify the type of waste that should be deposited in each one.

MAKE IT NICE! LET'S MAKE THE JOB OF RECYCLING NICER

Team name	Bin colour	Drawing template selected

GREEN PATROLLERS MISSION

Have you ever had your water cut off? Restrictions in the summer? This happens because water reserves are limited. For this reason, and to avoid waste, we are going to investigate where our water goes.
Did you know that a simple dripping tap can waste up to 30 litres per day?

LOOK ROUND THE SCHOOL TO FIND DRIPPING TAPS!

ZONES	YES	NO	No. OF DRIPPING TAPS	Observations
Class				
Toilets				
Playground				
Dinner hall				
Others				

Well done! Your next mission will be to bring from home all the empty 0.5-litre plastic bottles you can.
We are going to do two things with them at school and each team will choose one of the two options:

1. Reduce the quantity of water in a toilet cistern.
2. Create an ecological watering system.

Team name	No. of bottles	Cistern / watering option

GREEN PATROLLERS MISSION

"Hey! Switch out that light!"
Aren't you always getting told that? Well it's because light from a lightbulb comes from non-renewable energy, and its use has consequences on the environment. This means we should only use what we really need and no more.

LOOK ROUND THE SCHOOL TO FIND LIGHTBULBS!

ZONES	No. OF LIGHTBULBS	TYPE OF LIGHTBULB: Incandescent | LED | Fluorescent
Class		
Corridors		
Toilets		
Library		
Dinner hall		
Others		

Good! Now we're going to check out the insulation in the school.
Poorly-closed windows, covered radiators, badly-insulated joints, etc. are elements that impact on the correct insulation of a room.
Did you know that by this simple act of observation we can save up to 30% in heating and air-conditioning?

LOOK ROUND THE SCHOOL TO FIND CORRECT INSULATION!

Window closure	Covered radiators	Door and window joints

GREEN PATROLLERS MISSION

Did you know that for each sheet of paper you recycle you save the equivalent of 2 x 20W energy-saving lightbulbs switched on for one hour?
Collect all the sheets of paper in the whole school that can be recycled. Once you have done this, make a bundle of the sheets that can be used again to write roughly on or draw on, etc. We also suggest that you recycle cardboard boxes for craftwork, etc.

ZONES	No. OF SHEETS	CARDBOARD BOXES	Uses we can give to it
Class			
Staff room			
Secretary			
Library			
Others			

You already know the "4Rs rule", don't you? "R" for reduce, re-use, recycle, recover. With a little creativity and imagination you are going to bring to life objects that have ended up in the yellow and blue bins.

MAKE IT NICE! WE ARE GOING TO RECYCLE YOU

OBJECTS AND THINGS	NEW USES	In this column write the team that is going to give a use to the chosen object.
Cardboard tubes		
Cardboard boxes		
Egg boxes		
Plastic bottles		
Others		

GREEN PATROLLERS MISSION

World Water Day is 22nd March, to remind us all how important water is and how necessary it is to look after it.

To complete this mission, you will need to bring from home as many half-litre empty plastic bottles as you can. Now go to the school toilets and count the number of cisterns. You will see, with this simple act, that we are going to save between 2 and 4 litres of water for every flush.

ZONES	INDICATE LOCATION	Observations
Toilets		
Toilets		
Toilets		
Toilets		
Toilets		

Did you know that only 2.8% of water that exists on the planet is fresh water? We are going to learn how to filter dirty water, making it clean. Do you want to join us?

MAKE IT CLEAN AND SUSTAINABLE!

Team name	Bottle	Stones	Gravel	Sand	Cotton

GREEN PATROLLERS MISSION

Poorly closed windows, broken door and window joints, single-glazed windows... this is how the heat goes out and the cold comes in! Proper insulation can save up to 30% in heating and air-conditioning.

LOOK ROUND THE SCHOOL TO FIND INSULATION LEAKS!

ZONES	Windows poorly closed	Joints in doors and windows	Type of glazing (single or double)	Actions. What are we going to do?
Class				
Corridors				
Staff room				
Library				
Dinner hall				
Others				

Well done everyone!

Now we suggest that you investigate your daily route from home to school, noting all equipment or elements that work with electricity (street lighting, traffic lights, temperature clocks, illuminated signs, smoke extractors and air-conditioning units, automatic gates, garage doors, trains, etc.).

MONITOR ALL THE ENERGY USED IN OUR NEIGHBOURHOOD

Write here elements or equipment in your neighbourhood	Energy type	Observations

IDENTITY CARD - Appendix 2

GREEN PATROLLER

NAME

CLASS

GREEN PATROLLER

NAME

CLASS

GREEN PATROLLER

NAME

CLASS

GREEN PATROLLER

NAME

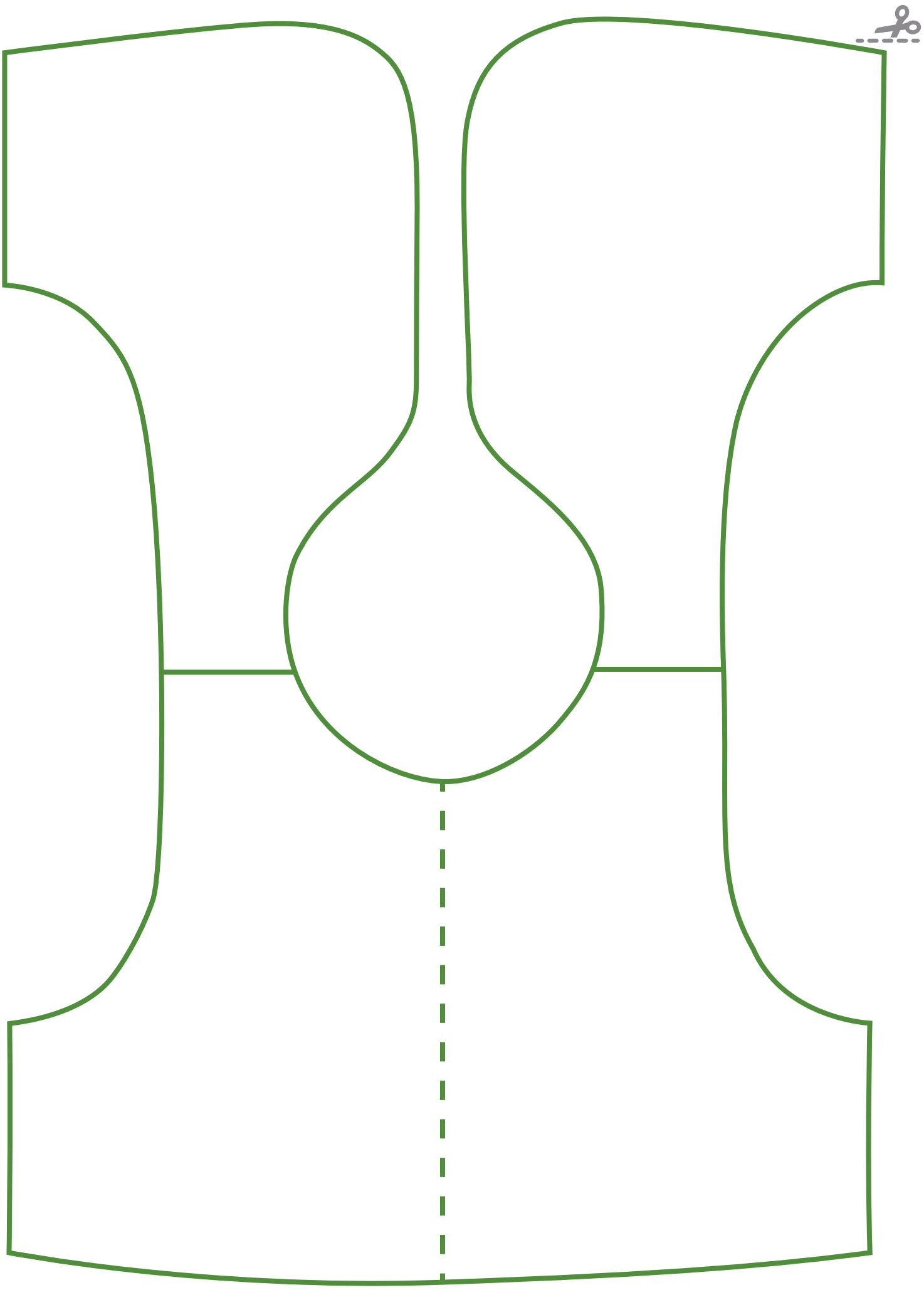
CLASS

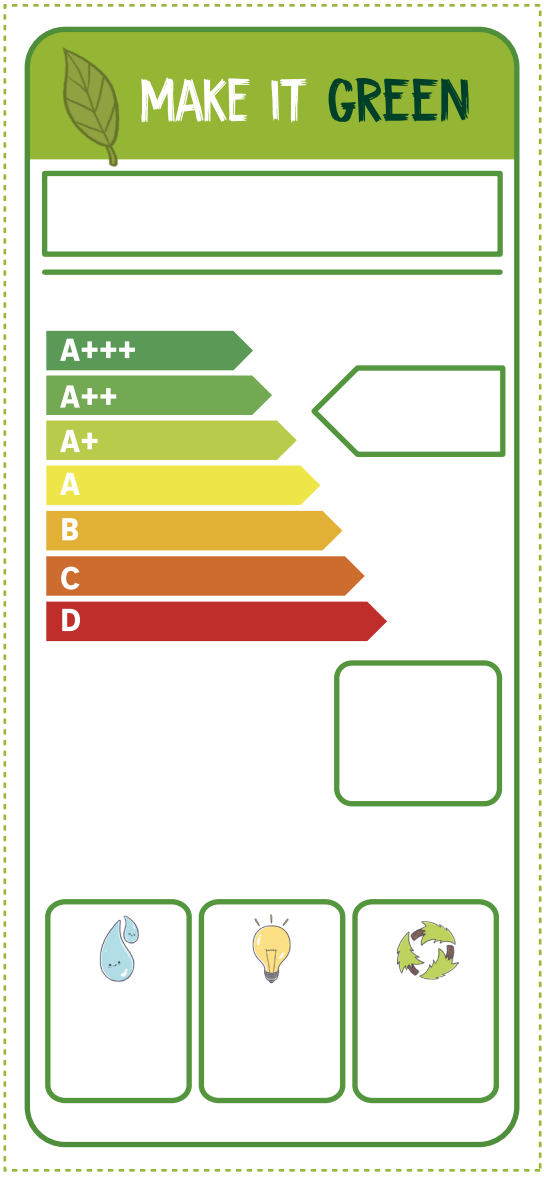
GREEN PATROLLER

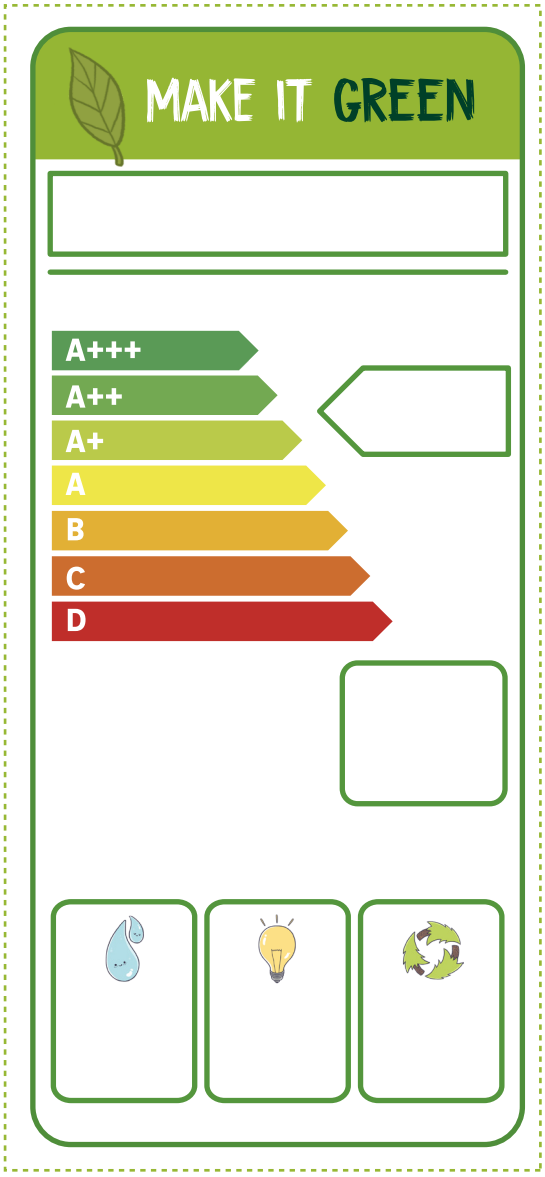
NAME

CLASS

VEST - Appendix 3




MAKE IT GREEN
A+++
A++
A+
A
B
C
D


MAKE IT GREEN
A+++
A++
A+
A
B
C
D

APPENDIX 5 – Templates to colour in