GENDER EQUALITY: THE ADVENTURE OF BOTTI AND HIS SPACESHIP

MAT10. Coding literacy for the lessons.

START

FINISH

REFUSE AND REDUCE
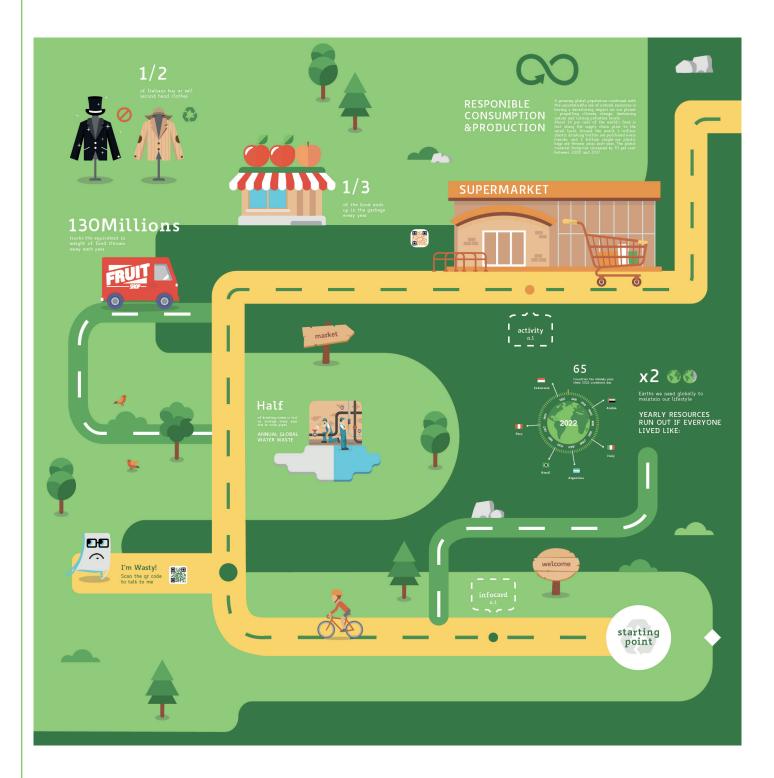
SUPERMARKET

FRUIT SHOP

1

LESSON

market

Section of the map

This section of the map is dedicated to the first lesson and is used as a background on Scratch.

With Robbie, an aspiring guide inside the Junky Park museum, in the first lesson students will identify key principles of the 7Rs of sustainable consumption, understanding the importance of reducing superfluous purchases.

1/2
of Italians buy or sell
second hand clothes

130Millions
trucks the equivalent in
weight of food thrown
away each year

1/3
of the food ends
up in the garbage
every year

SUPERMARKET

RESPONIBLE CONSUMPTION &PRODUCTION

A growing global population combined with the unsustainable use of natural resources is having a devastating impact on our planet – propelling climate change, destroying nature and raising pollution levels. About 14 per cent of the world's food is lost along the supply chain prior to the retail level. Around the world, 1 million plastic drinking bottles are purchased every minute, and 5 trillion single-use plastic bags are thrown away each year. The global material footprint increased by 70 per cent between 2000 and 2017.

Half
of drinking water is lost
on average every year
due to worn pipes

ANNUAL GLOBAL WATER WASTE

market

activity
n.1

65
Countries has already pass
their 2022 overshoot day

2022

Indonesia
Arabia
Peru
Italy
Brazil
Argentina

x2
Earths we need globally to
maintain our lifestyle

YEARLY RESOURCES RUN OUT IF EVERYONE LIVED LIKE:

I'm Wasty!
Scan the qr code
to talk to me

welcome

infocard
n.1

starting point

Refuse and Reduce

Activities description

The screenshot n. 0 shows the "Backdrops" code blocks of the four lessons loaded in the Stage section

The screenshot n. 1 refers to the code blocks related to the "Bowtie" sprite

The screenshot n. 2 refers to the code blocks related to the "Glasses" sprite

The screenshot n. 3 refers to the code blocks related to the "Microphone" sprite

The screenshots n. 4 refers to the code blocks related to the "Robot" sprite

The screenshot n. 5 refers to the code blocks related to the "Shoes" sprite

The screenshot n. 6 refers to the code blocks related to the "Sin titulo-1" sprite

0

```
when [flag] clicked
switch backdrop to 10_Spagna_Lez1

when 2 key pressed
switch backdrop to 10_Spagna_Lez2

when 3 key pressed
switch backdrop to 10_Spagna_Lez3

when 4 key pressed
switch backdrop to 10_Spagna_Lez4
```

1

```
when [flag] clicked
hide

when backdrop switches to 10_Spagna_Lez1
hide
```

2

```
when [flag] clicked
hide
glide 1 secs to x: -104 y: 75

when backdrop switches to 10_Spagna_Lez1
hide
```

3

```
when [flag] clicked
show
go to x: -137 y: -89
wait 1 seconds

when this sprite clicked
show
wait 1 seconds
say Hello! I'm going to show you how to shop sustainably. for 2 seconds
say Let's go to the supermarket for 2 seconds
hide
```

4

```
when 1 ▾ key pressed
switch backdrop to 10_Spagna_Lez1 ▾

when 🏳 clicked
show
go to x: 150 y: -110
switch costume to robot-a ▾
wait 1 seconds
say Hi, I'm Robbie and I'm going to be your guide through the Junky Park Museum. for 5 seconds
say You are my first group, would you like me to accompany you? for 5 seconds
say I will explain to you the importance of responsible production and consumption to safeguard the environment. for 5 seconds
say Oh! We are at the starting point for 2 seconds
repeat 2
    wait 1 seconds
    hide
    wait 1 seconds
    show
wait until  key left arrow ▾ pressed?
glide 1 secs to x: 56 y: -110
wait 2 seconds
say Let's continue? for 2 seconds
repeat 2
    wait 1 seconds
    hide
    wait 1 seconds
    show
wait until  key left arrow ▾ pressed?
glide 1 secs to x: -80 y: -110
glide 1 secs to x: -80 y: -77
say Hi Wasty! for 2 seconds
say Click on the microphone for 2 seconds
wait until  key up arrow ▾ pressed?
glide 1 secs to x: -80 y: 67
glide 1 secs to x: 74 y: 67
repeat 2
    wait 1 seconds
    hide
    wait 1 seconds
    show
wait until  key right arrow ▾ pressed?
glide 1 secs to x: 154 y: 67
glide 1 secs to x: 154 y: 155
say Press "2" to continue for 2 seconds
hide
```

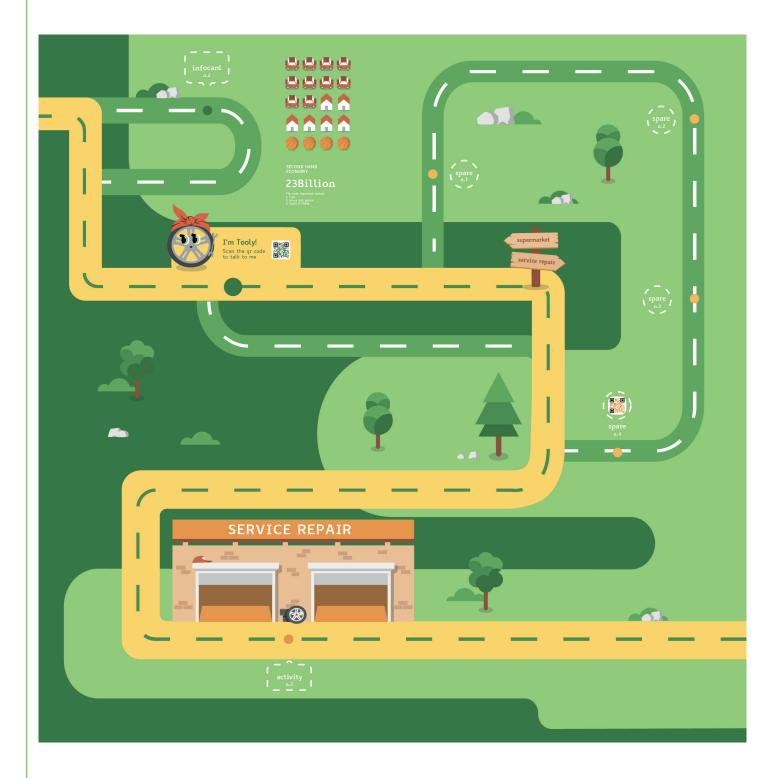**5**

```
when 🚩 clicked
hide
```

```
when backdrop switches to  10_Spagna_Lez1 ▾
hide
```

6

```
when 🚩 clicked
hide
```

REUSE

supermarket

service repair

2

LESSON

SERVICE REPAIR

Section of the map

This section of the map is dedicated to the third lesson and is used as a background on Scratch.
In the second lesson children will learn the importance of Reuse as a key principle of the 7Rs, recognizing how giving new life to items extends their usefulness and reduces waste.

2

Reuse

Activities description

The screenshot n. 1 refers to the code blocks related to the "Bowtie" sprite

The screenshot n. 2 refers to the code blocks related to the "Glasses" sprite
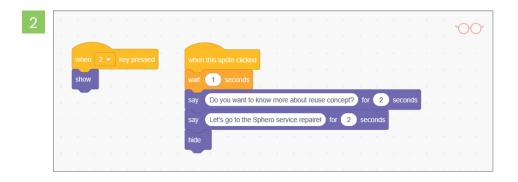
The screenshot n. 3 refers to the code blocks related to the "Microphone" sprite

The screenshots n. 4a, 4b and 4c refer to the code blocks related to the "Robot" sprite

The screenshot n. 5 refers to the code blocks related to the "Shoes" sprite

The screenshot n. 6 refers to the code blocks related to the "Sin titulo-1" sprite
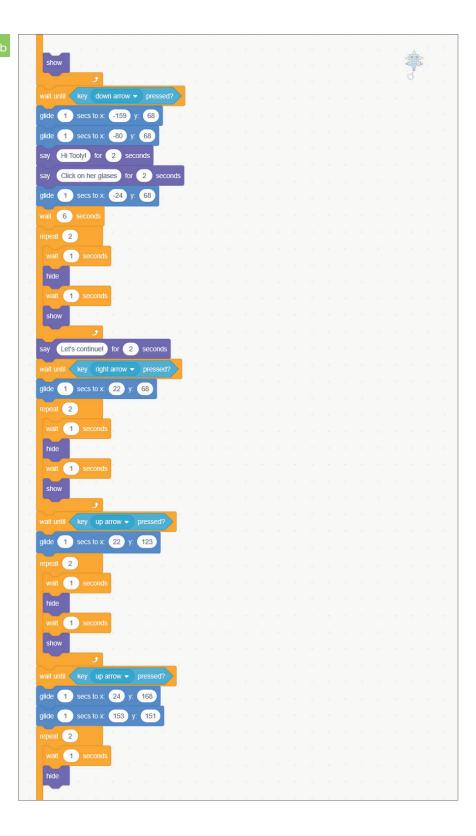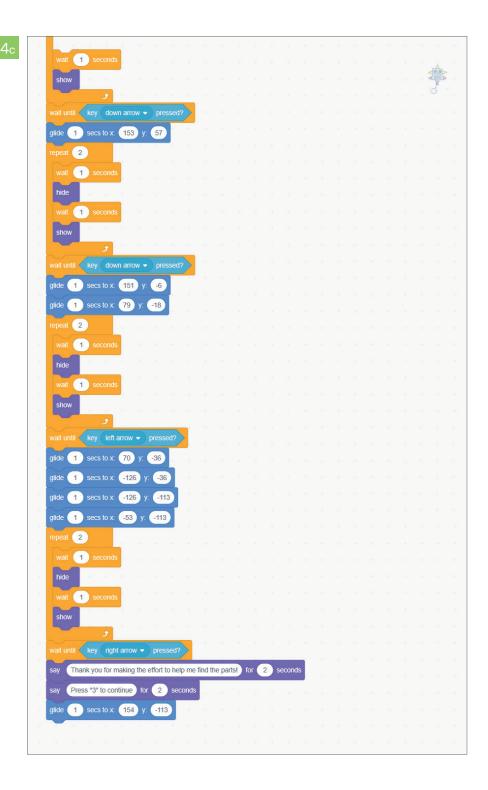
DISCLAIMER:
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The division of the codes into the four lessons is only explanatory. The Mat coding file is unique and contains all the code blocks of the four lessons necessary for the operation of the program, always associated with the single Sprite.

1

when backdrop switches to 10_Spagna_Lez2
hide

2

when 2 key pressed
show

when this sprite clicked
wait 1 seconds
say Do you want to know more about reuse concept? for 2 seconds
say Let's go to the Sphero service repaire! for 2 seconds
hide

3

when backdrop switches to 10_Spagna_Lez2
hide

4a

when 2 key pressed
switch backdrop to 10_Spagna_Lez2
show
go to x: -159 y: 152
wait 4 seconds
say Let's get to know the museum! Let's go over to Tooly and see what she has to tell us. for 4 seconds
repeat 2
wait 1 seconds
hide
wait 1 seconds

4b

```
show
wait until  key  down arrow ▼  pressed?
glide  1  secs to x:  -159  y:  68
glide  1  secs to x:  -80  y:  68
say  Hi Tooly!  for  2  seconds
say  Click on her glases  for  2  seconds
glide  1  secs to x:  -24  y:  68
wait  6  seconds
repeat  2
    wait  1  seconds
    hide
    wait  1  seconds
    show
say  Let's continue!  for  2  seconds
wait until  key  right arrow ▼  pressed?
glide  1  secs to x:  22  y:  68
repeat  2
    wait  1  seconds
    hide
    wait  1  seconds
    show
wait until  key  up arrow ▼  pressed?
glide  1  secs to x:  22  y:  123
repeat  2
    wait  1  seconds
    hide
    wait  1  seconds
    show
wait until  key  up arrow ▼  pressed?
glide  1  secs to x:  24  y:  168
glide  1  secs to x:  153  y:  151
repeat  2
    wait  1  seconds
    hide
```

4c

```
wait 1 seconds
show
wait until  key  down arrow ▾  pressed?
glide 1 secs to x: 153 y: 57
repeat 2
    wait 1 seconds
    hide
    wait 1 seconds
    show
wait until  key  down arrow ▾  pressed?
glide 1 secs to x: 151 y: -6
glide 1 secs to x: 79 y: -18
repeat 2
    wait 1 seconds
    hide
    wait 1 seconds
    show
wait until  key  left arrow ▾  pressed?
glide 1 secs to x: 70 y: -36
glide 1 secs to x: -126 y: -36
glide 1 secs to x: -126 y: -113
glide 1 secs to x: -53 y: -113
repeat 2
    wait 1 seconds
    hide
    wait 1 seconds
    show
wait until  key  right arrow ▾  pressed?
say Thank you for making the effort to help me find the parts! for 2 seconds
say Press "3" to continue for 2 seconds
glide 1 secs to x: 154 y: -113
```

5

```
when backdrop switches to  10_Spagna_Lez2 ▾
hide
```

6

```
when 2 ▾ key pressed
hide
```

REPURPOSE

Marcel Duchamp
Bicycle Wheel, 1913

SOUVENIR STORE

service repair

art gallery

Marcel Duchamp
Fountain, 1917

3

LESSON

This section of the map is dedicated to the third lesson and is used as a background on Scratch.

In the third lesson Children will learn that Repurpose means transforming items or waste that cannot be refused, reduced, or reused into something new and useful, helping to minimize their environmental impact.

RETHINK FISHING ACTIVITIES

60%

One of the most serious threats to the sustainability of our seas and all the species that populate them is overfishing.

SOUVENIR STORE

activity n.3

I'm Shade!
Scan the qr code to talk to me

Marcel Duchamp Bicycle Wheel, 1913

Marcel Duchamp Fountain, 1917

Art

Art has always been creative in finding alternative uses.
An example?
Ready-Made objects

R MUTT 1917

Alternative Uses

To use something for a different purpose to the one for which it was originally intended

art gallery

service repair

infocard n.3

CIRCULAR ECONOMY FOR ELECTRIC VEHICLE

Many retired electric vehicle batteries can be repurposed before recycling. Giving electric vehicle batteries a "second life" we extend the useful life of these batteries

Repurpose

Activities description

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The screenshot n. 2 refers to the code blocks related to the "Glasses" sprite

The screenshot n. 3 refers to the code blocks related to the "Microphone" sprite

The screenshots n. 4a and 4b refer to the code blocks related to the "Robot" sprite

The screenshot n. 5 refers to the code blocks related to the "Shoes" sprite

The screenshot n. 6 refers to the code blocks related to the "Sin titulo-1" sprite

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1

```
when backdrop switches to  10_Spagna_Lez3 ▾
hide
```

2

```
when backdrop switches to  10_Spagna_Lez3 ▾
hide
```

3

```
when backdrop switches to  10_Spagna_Lez3 ▾
hide
```

4a

```
when  3 ▾  key pressed
glide  1  secs to x:  -169  y:  -111
say  Now, let' s meet Shade  for  2  seconds
repeat  2
  wait  1  seconds
  hide
  wait  1  seconds
  show
wait until  key  right arrow ▾  pressed?
glide  1  secs to x:  -80  y:  -111
glide  1  secs to x:  -80  y:  32
glide  1  secs to x:  -1  y:  32
say  Hello Shade!  for  2  seconds
say  Click on his shoes  for  2  seconds
glide  1  secs to x:  54  y:  32
wait  4  seconds
repeat  2
```

4b

```
wait 1 seconds
hide
wait 1 seconds
show

say Hey, we have a souvenir shop, maybe we can get inspiration or find other objects with which [....] for 6 seconds
wait until key up arrow ▾ pressed?
glide 1 secs to x: 61 y: 99
glide 1 secs to x: 124 y: 99
repeat 2
    wait 1 seconds
    hide
    wait 1 seconds
    show
say Press "4" to continue for 2 seconds
wait until key right arrow ▾ pressed?
glide 1 secs to x: 174 y: 99
```

5

```
when 3 ▾ key pressed
show


when this sprite clicked
wait 1 seconds
say Hello! My greatest wish is to refurnish an environment or space .... Could you help me? for 4 seconds
hide
```
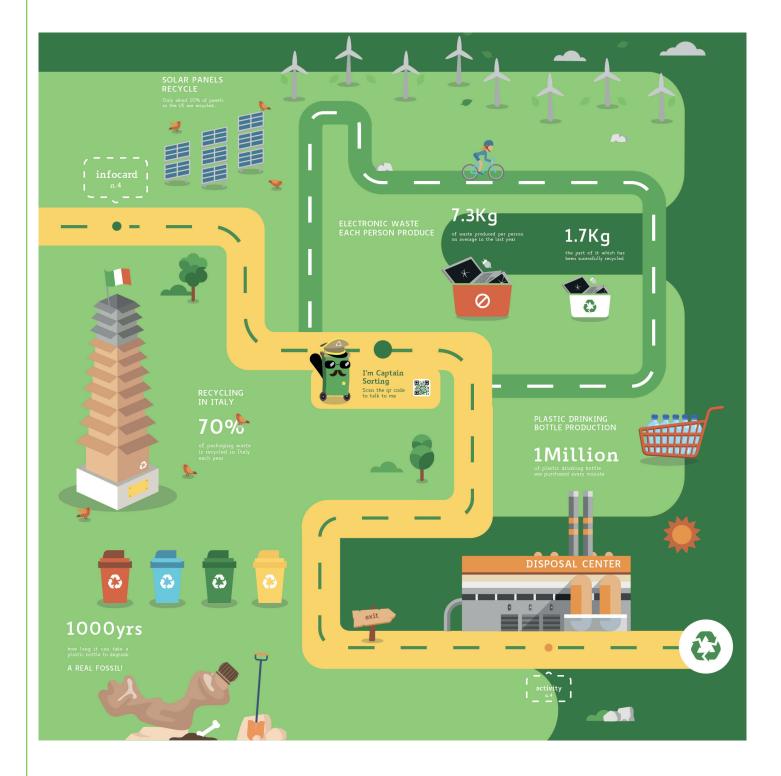
6

```
when 3 ▾ key pressed
hide
```

16

RECYCLING

DISPOSAL CENTER

exit

4

LESSON

This section of the map is dedicated to the fourth lesson and is used as a background on Scratch.
In the final lesson students will understand how recycling helps reduce landfill waste, save energy, and minimize pollution, making it a critical part of protecting the environment.

SOLAR PANELS RECYCLE
Only about 10% of panels in the US are recycled.

infocard n.4

ELECTRONIC WASTE EACH PERSON PRODUCE

7.3Kg
of waste produced per person on average in the last year

1.7Kg
the part of it which has been sucessfully recycled

I'm Captain Sorting
Scan the qr code to talk to me

RECYCLING IN ITALY
70%
of packaging waste is recycled in Italy each year

PLASTIC DRINKING BOTTLE PRODUCTION
1Million
of plastic drinking bottle are purchased every minute

DISPOSAL CENTER

exit

1000yrs
how long it can take a plastic bottle to degrade
A REAL FOSSIL!

activity n.4

Recycling

Activities description

The screenshot n. 1 refers to the code blocks related to the "Bowtie" sprite

The screenshot n. 2 refers to the code blocks related to the "Glasses" sprite

The screenshot n. 3 refers to the code blocks related to the "Microphone" sprite

The screenshots n. 4a and 4b refer to the code blocks related to the "Robot" sprite

The screenshot n. 5 refers to the code blocks related to the "Shoes" sprite

The screenshot n. 6 refers to the code blocks related to the "Sin titulo-1" sprite

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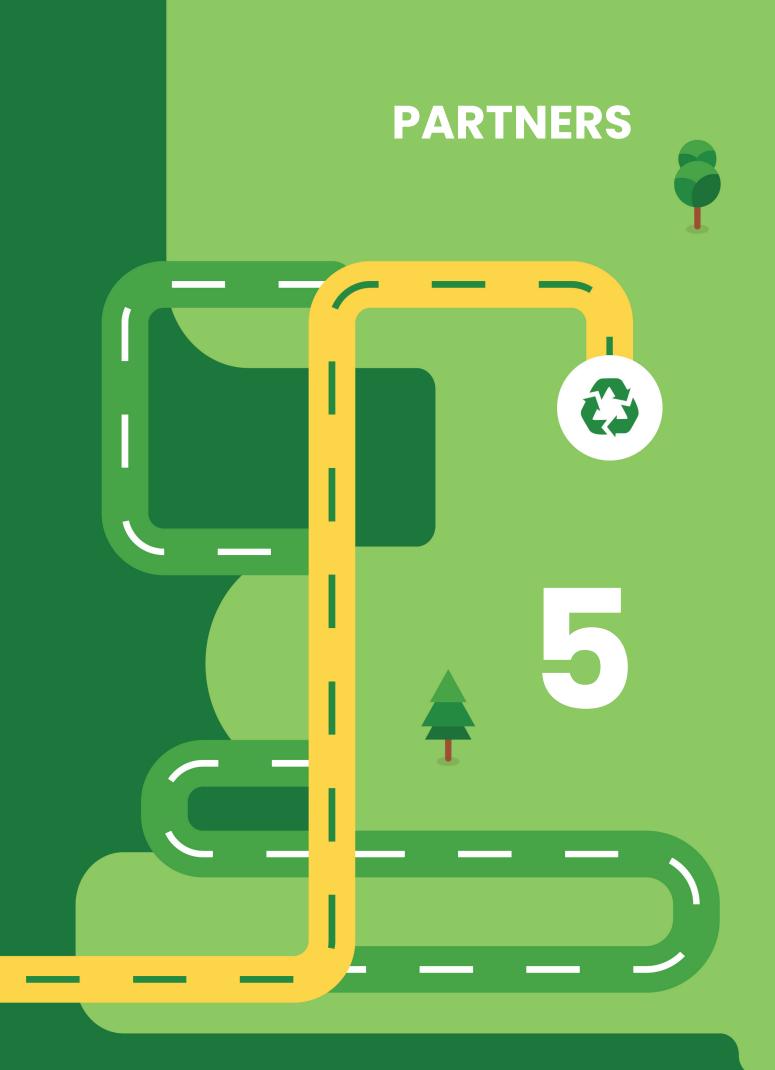The division of the codes into the four lessons is only explanatory. The Mat coding file is unique and contains all the code blocks of the four lessons necessary for the operation of the program, always associated with the single Sprite.

1

```
when  4 ▾  key pressed
show
```

```
when this sprite clicked
wait  1  seconds
say  Do you see all the facts about recycling?  for  6  seconds
hide
```

2

```
when backdrop switches to  10_Spagna_Lez4 ▾
hide
```

3

```
when backdrop switches to  10_Spagna_Lez4 ▾
hide
```

4a

```
when  4 ▾  key pressed
glide  1  secs to x:  -169  y:  97
say  Let's meet Captain Classification  for  3  seconds
repeat  2
    wait  1  seconds
    hide
    wait  1  seconds
    show
    ↻
wait until < key  right arrow ▾  pressed? >
glide  1  secs to x:  -77  y:  97
glide  1  secs to x:  -77  y:  36
glide  1  secs to x:  -5  y:  36
say  Hi director!  for  2  seconds
say  Click on his bow tie  for  2  seconds
wait  10  seconds
say  Let's read them!  for  2  seconds
repeat  2
```

4b

```
wait 1 seconds
hide
wait 1 seconds
show

wait until < key right arrow pressed? >
glide 1 secs to x: 37 y: 36
glide 1 secs to x: 37 y: -50
glide 1 secs to x: -34 y: -50
glide 1 secs to x: -34 y: -115
glide 1 secs to x: 79 y: -115
wait 1 seconds
say Thanks for your help! for 4 seconds
say Because of your effort and dedication, you have earned the 7'R work medal! for 4 seconds
broadcast Because of your effort and dedication, you have earned the 7'R work medal!
```

5

```
when backdrop switches to 10_Spagna_Lez4
hide
```

6

```
when 4 key pressed
set size to 20 %
hide
go to x: 15 y: 4


when I receive Because of your effort and dedication, you have earned the 7'R work medal!
show
glide 1 secs to x: 147 y: -80
glide 1 secs to x: 15 y: 4
set size to 100 %
wait 4 seconds
hide
```

PARTNERS

5

Main partners

SPAIN
Esciencia is an SME based in Zaragoza established in 2006 as a spin-off of the University of Zaragoza. **Esciencia Eventos Científicos S.L.** is dedicated to the management and organization of science dissemination projects. The company offers both consulting services and the design of educational programs.

ITALY
Sapienza University of Rome, (**Department of Planning, Design, Technology of Architecture**). Sapienza was founded by Pope Boniface VIII in 1303. It's one of the oldest universities in the world and the second largest University in EU, with 11 faculties, 63 departments, 111.000 students and more than 4.700 professors.

All partners

ITALY
The CISL Scuola (Confederazione Italiana Sindacati Lavoratori - Scuola) is the union of the staff of primary and nursery schools, secondary schools and vocational training of the CISL. It was founded in 1997 by the union of SINASCEL (National Union Elementary School) and SISM (Italian Union of Middle School).
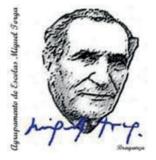
ITALY
Pixel is an education and training institution based in Florence (Italy). Pixel was founded in 1999. Pixel's mission is to promote an innovative approach to education, training and culture, this is done mostly by trying to exploit the best potential of ICT for education and training.

ROMANIA
EuroEd Primary School includes a Kindergarten and a primary school. Both are accredited by the Romanian Ministry of Education. It promotes the EU dimension of education and it also encourages multiculturalism and multilingualism by providing education to children of different nationalities or ethnic groups.

PORTUGAL
The **Agrupamento de Escolas Miguel Torga** is a school located in Bragança, Portugal, an inland city of the country. The school consists of three buildings, two for preschool and elementary school and one for secondary and high school. There are 88 teachers, 2 psychologists and also a speech therapist.

BULGARIA
Zinev Art Technologies Ltd. is a company developing, implementing and managing European projects and providing consultations in the spheres of culture, art, Internet-based activities and education, VET, e-learning and school education development, as well as regional development.