



GOUVERNEMENT

*Liberté
Égalité
Fraternité*

“Risk Toolbox” Workshop

ACTIVITY GUIDE



**Forest fires and wildfires
&
Rainfall and flooding**

Intense rainfall in the Mediterranean basin has already caused deaths and considerable material damage, as is the case with forest fires and wildfires every summer. To prevent and protect oneself from these natural disasters, it is absolutely essential to be aware of the good practices that must be adopted.

Let's behave responsibly to save lives.

These good practices can be taught from a very young age, and discovered in a fun way with the "Risk Toolbox".

Teachers, educators and parents, this toolbox is available for you to use, to take a fun approach to raising awareness about the two most common natural risks in France (mainland and Corsica), the risk of forest fires and wildfires and the risk of rainfall and flooding.

Middle and high-school students, use this toolbox and get involved in ensuring your own safety!

The "Risk Toolbox" can be used in groups of 4 to 6 players, with an adult activity leader. Players can be aged between 12 and 16. Each game takes around thirty minutes, and then there's a fifteen minute debriefing session to discuss players' answers.

The "Risk Toolbox" is an enjoyable initiative developed by the French Government as part of the "Resilient together in the face of risk" event.

Since 2022, the 13 October every year is celebrated as national resilience day. It is an opportunity to organise awareness campaigns about natural and technological risks across French territory.

CONTENTS

INSTALLATION	4
“RISK TOOLBOX” WORKSHOP PROCEDURE	5
Initial scenario	5
FOREST FIRES AND WILDFIRES BOX	6
1) Opening the forest fires and wildfires box:	6
2) The riddles of the forest fires and wildfires box	9
Riddle no. 1 (mat): “How to avoid starting a fire?”	10
Answers to riddle no. 1 (mat):	10
Riddle no. 2 (optical illusion): “What to do in the event of a fire starting?”	11
Answers to riddle no. 2 (optical illusion):	12
Riddle no. 3 (logic puzzle and placing tiles): “How to protect your home in the event of a fire starting?”	13
Answers to riddle no. 3 (logic puzzle and placing tiles):	14
Riddle no. 4 (jigsaw puzzles): “How to protect your home in anticipation?”	15
Answers to riddle no. 4 (jigsaw puzzles):	15
3) End-of-game debriefing for the forest fires and wildfires box:	16
RAINFALL AND FLOODING BOX	18
1) Opening the rainfall and flooding box:	18
2) The riddles of the rainfall and flooding box	20
Riddle no. 1 (72-hour emergency kit): “How can I be prepared following a flood warning?”	21
Answers to riddle no. 1 (72-hour emergency kit):	22
Riddle no. 2 (Vigicrues): “How can I keep up-to-date in the event of a flood risk?”	23
Answers to riddle no. 2 (Vigicrues):	23
Riddle no. 3 (memory game): “What are the good practices to remember in the event of flooding?”	24
Answers to riddle no. 3 (memory game):	24
3) End-of-game debriefing for the rainfall and flooding box:	25

The “Risk Toolbox” addresses two natural risks: forest fires and wildfires, and rainfall and flooding. Each kit is available as a wooden box and a printable version, free-of-charge from the Ministry in charge of the Ecological Transition website.

INSTALLATION

1/ Contents

- **Forest fires and wildfires box:**

- 1 forest fires and wildfires game booklet
- 1 forest fires and wildfires campaign poster (if possible)
- 1 forest fires and wildfires wooden box*
- 1 mat for riddle no. 1 (or printed sheets of A4-size paper)
- 1 object (disc) for riddle no. 2
- 1 board + 7 tiles (5 texts and 3 symbols) + frame with 3 windows for riddle no. 3
- 3 sixteen-piece jigsaws for riddle no. 4 + 2 boards

* item not necessary for the printed version

- **Rainfall and flooding box:**

- 1 rainfall and flooding game booklet
- 1 rainfall and flooding campaign poster (if possible)
- 1 rainfall and flooding wooden box*
- 18 “72-hour emergency kit” tiles for riddle no. 1
- 4 long tabs with a window each + 1 frame for riddle no. 2*
- 9 pairs of tiles (18) for riddle no. 3

* item not necessary for the printed version

Printed box version:

The long tabs with a window and the frame for riddle 2 are replaced by an optical illusion.

2/ Set up

1. The box contains all the items needed to solve the riddles. You'll need to make sure the box isn't open and that the 4 wheels on all 4 sides of the box have been turned (a system inside the box keeps the box closed until the 4 wheels are turned to the correct place).
2. As well as the box, each team will need a game booklet, in which they will be able to note down the good practices as they uncover them. This game booklet can be placed on the table.
3. Display a prevention campaign poster in the room.

Printed box version:

In the printed version of the game, there is no box to open. To start the game and gain access to the riddles, players will need to answer 4 questions in the game booklet.

“RISK TOOLBOX” WORKSHOP PROCEDURE

For an additional challenge, it is possible to turn the game into a theatrical activity.

Idea for the initial scenario (for both risks):

Activity leader: *“Welcome! If you are here, it’s because we need your help finding all the good practices that need to be adopted in the event of forest fires and wildfires and/or rainfall and flooding!”*

We have just received a call from a French department. The message is clear: they need you to tell them quickly what good practices need to be adopted because they are currently experiencing a forest fire / episode of intense rainfall.

The risk experts are not available, but have no fear, we have the risk toolboxes right here and they will help you find all the answers! Are you ready to help us complete this mission?

You have 30 minutes maximum!

At the end of the 30 minutes, we’ll have a look at your findings and then decide together what solutions to send to the local authorities to help them overcome this crisis!”

As an option, if there is only one box available: each group can take a look at the box in turn and then return to their game booklet to look for the answers, before returning to the box to test them out.

FOREST FIRES AND WILDFIRES BOX

1) Opening the forest fires and wildfires box:

In groups, players try to figure out the answers to the 4 riddles that will open the box by using the game booklet provided (see the first 3 pages). Once the wheels have been unlocked on each side of the box, players ask the activity leader to come and check the answers together.

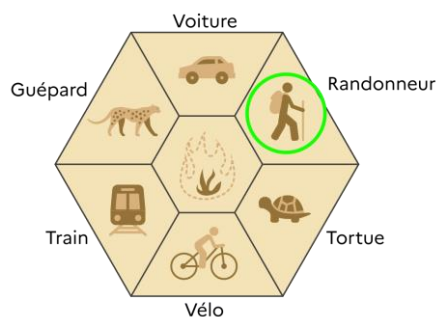
> Printed box version: *Players need to provide their answers on a specific sheet - "Printed box: opening the box". The questions are identical to those needed to open the wooden box. Once the players think they have found the right answers, they ask the activity leader to come and validate their answers so they can then move on to the next step.*



Answers to the riddles to open the box:

Players need to use their game booklet (first 3 pages) as they try to open the box:

1. "How fast on average does a fire spread?" : **Hiker**

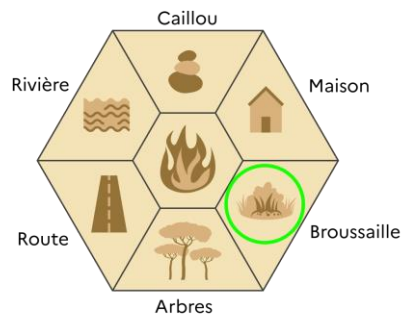


Answer in the prevention text (1st page of the game booklet):

*“[...] The speed a fire spreads depends on several factors (type of soil, type of vegetation, nature of the terrain, etc.)/ **On average, flames can cover a kilometre in less than 10 minutes**, which is when a fire is considered out of control, spreading to forests, housing, etc. [...]”*

The answer is therefore the hiker. As specified in the text, the speed a fire spreads depends on several factors (wind, type of vegetation, nature of the terrain, type of soil, etc.) but on average a fire spreads at the speed of a walker (6 km/hr).

2. “What item found near the forest and the home can make a fire worse?” : **Undergrowth**



Answer in the the prevention text (1st page of the game booklet):

*“[...] The vegetation is increasingly dry and vulnerable to fire. The slightest spark or ember is a potential danger and can result in flames. A cigarette end that is still smouldering or a spark generated by tools or fireworks **can set light to grass and undergrowth**. [...]”*

The answer is undergrowth. Wildfires start at ground level. The vegetation’s finer components easily catch light (grass, undergrowth, twigs, pine needles, etc.) and the fire then spreads via low-growing shrubs and dead branches, which are closer to the ground, before making its way to the treetops.

3. “Out of 10 forest fires, how many are caused by humans?”: **9**



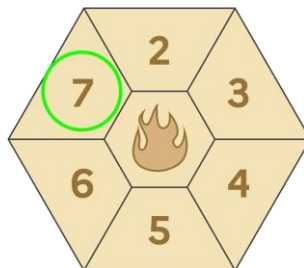
Answer in the the prevention text (1st page of the game booklet):



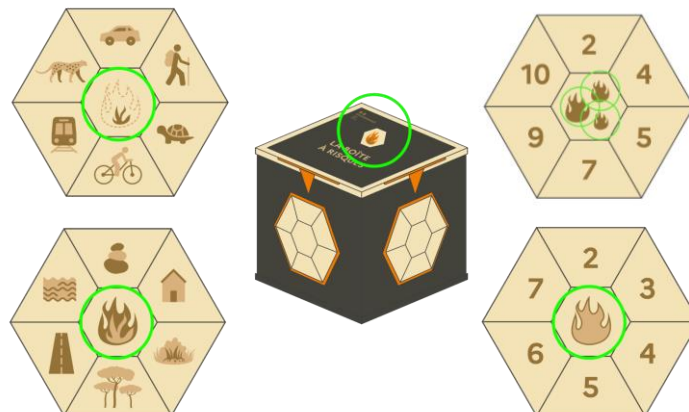
The answer is 9 out of 10 fires. Half of these are accidental. That is why it's necessary to behave responsibly to avoid starting a fire.

Bonus question: "If 9 out of 10 fires are caused by humans, what is the other cause of fires?" Answer: **lightning!**

4. "How many times can you find this shape (flame) on the box?" : 7



Answer on the different sides of the box (2nd page of the game booklet):



Riddle no. 1 (mat): “How to avoid starting a fire?” *

First of all, the activity leader will roll out the mat:



Once the mat is in place, players have to find the 3 coordinates (letter, number) that match the good practices and make a note of them in their game booklet.

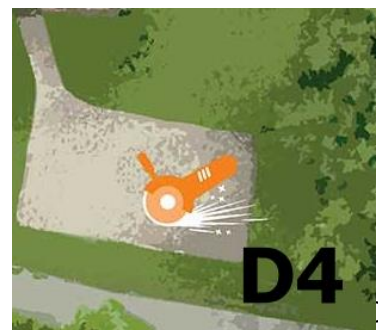
Answers to riddle no. 1 (mat):

Players need to find:

The barbecue set up correctly on a patio, far from dry vegetation (coordinates: **B1**)

The cigarette butt in an ashtray (coordinates: **A3**)

Mechanical tools, far from dry vegetation (coordinates: **D4**)



Educational points:

As a reminder, during heatwaves, periods of drought or strong winds, the slightest spark can start a fire. To avoid a disaster, it is important to avoid any behaviour that could create embers and sparks near vegetation.



Riddle no. 2 (three-level wheel): “What to do in the event of a fire starting?”

Players have one item for this riddle: the three-level-wheel.

Answers to riddle no. 2 (three-level wheel):

The player has to rotate the wheels to find the position that will allow them to find the hidden words.

The correct answers are in this order: 1. *Alert* 2. *Protect* 3. *Stay informed*



Educational points:

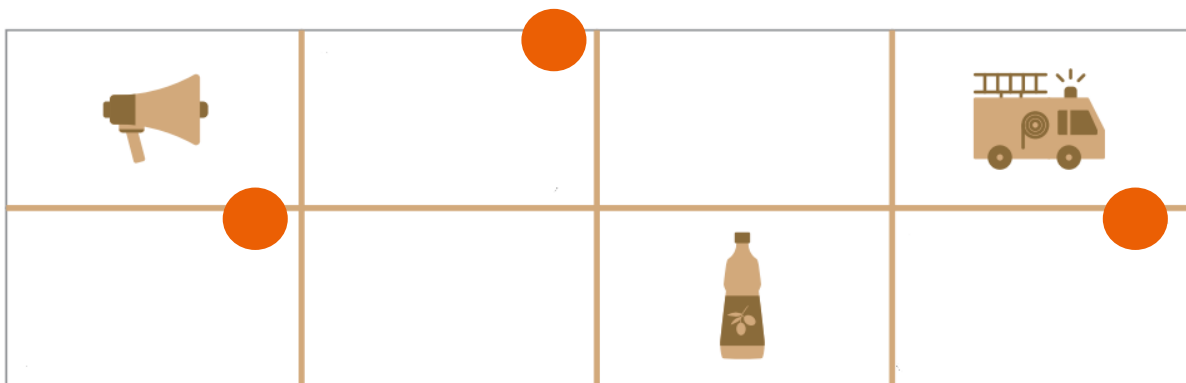
In the event of a fire starting, the emergency number to call is 112, and this is the standard emergency number across the whole of the European Union.

18 is the direct number to call for France.






114 is the number to call for people who are hard of hearing.

Riddle no. 3 (logic puzzle and placing tiles): “How to protect your home in the event of a fire starting?”

Players are given the following board:



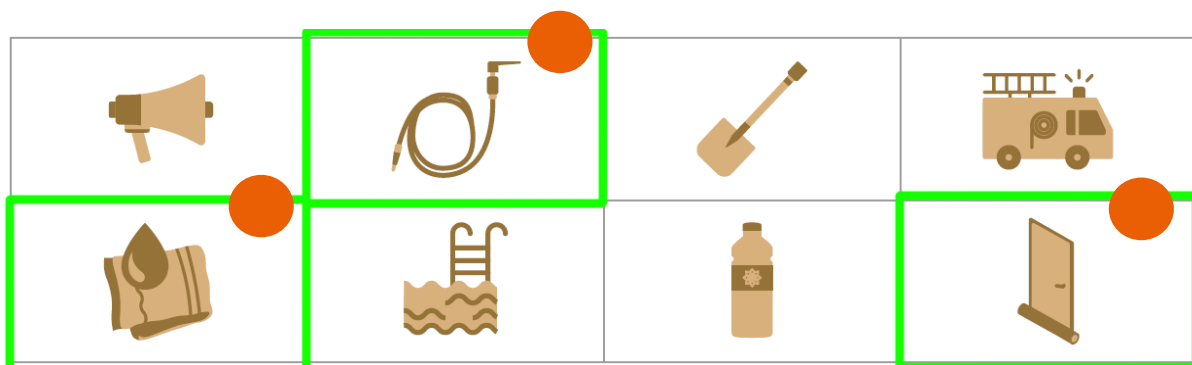
And these images (on separate tiles):

		
		Les 3 bons réflexes pour se protéger dans son habitation sont sur des cases marquées.
Le tuyau peut remplir une case voisine.	La haut parleur est à 4 cases de la porte bloquée.	
Deux voisins horizontaux se mélangent mal.	On peut tremper le linge dans son voisin de droite.	

In the box, you'll also find an object the same size as the board with 3 rectangular holes that will highlight the 3 good practices from riddle no. 3. Place this object onto the board and you'll reveal the 3 good practices.

Answers to riddle no. 3 (logic puzzle and placing tiles):

The goal is to find the 3 symbols that match the good practices, using the 5 clues (tiles). Players will see the right place indicated with an orange sticker. The goal is to then figure out what they mean, with the help of the activity leader.



“The hose pipe can fill a nearby square”: the square in question is just underneath, a swimming pool. The hose pipe can be used to fill the pool.

“The speaker phone is 4 squares away from a blocked-off door”: to reach the 4th square after the speaker phone, you’ll need to move 3 squares to the right and 1 square down.

“Two neighbouring squares don’t mix well”: oil and water do not mix, so the pool needs to be placed next to the bottle of oil.

“The towel can be soaked in the square to the right”: the towel can be soaked in the pool, so it needs to be placed to the left of the pool.

Educational points:

Comment se protéger dans son habitation en cas de feu ?



Tuyau d'arrosage

Avant l'arrivée du feu, je rentre mon tuyau d'arrosage. Il pourra être utile après le passage du feu, pour éteindre les dernières braises.



Aération

Je bouche les aérations et les bas de porte pour m'assurer que les fumées toxiques et les flammèches ne puissent pas pénétrer à l'intérieur de mon habitation.



Linge humide

Je me couvre le nez et la bouche d'un linge humide pour me protéger de la fumée.

Bonus: Remember that it's not up to you to put out the fire, that's what the fire-fighters (fire engine square) are for, and they will need to be informed when you see a fire. Once the fire

has been put out, the hose pipe (hose square) can be used to spray water over the embers to make sure the fire doesn't start again. Finally, the shovel (shovel square) can be used to smother the last remaining embers.

Riddle no. 4 (jigsaw puzzles): "How to protect your home in anticipation?"

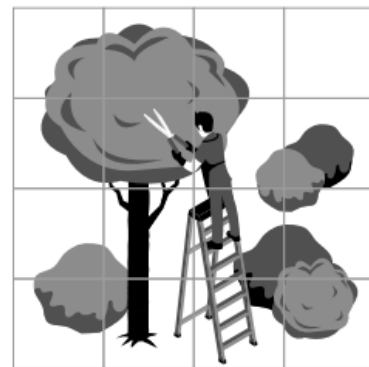
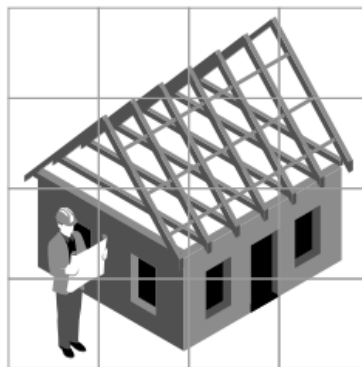
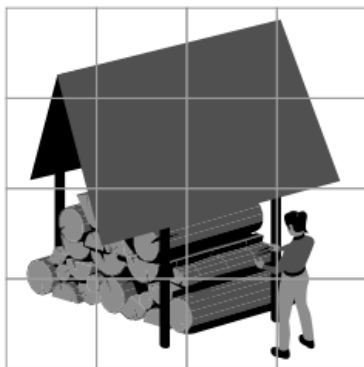
Players will be given 3 jigsaw puzzles (front and back), each with 16 pieces. These pieces need to be put back together.

The text for the good practice is found on the back of the jigsaw pieces.

In the box, there are also 2 boards that can be used to help turn the jigsaw over more easily and then read the good practices on the back.

Answers to riddle no. 4 (jigsaw puzzles):

Illustration side:



Good practices side:

FUEL If possible, make sure that wood, fuel, gas bottle etc. are placed away from the walls of your house.

CONSTRUCTION If you live in an area covered by a forest fire risk prevention plan, equip your house with appropriate safety features (shutters, gutters, roofing, ventilation, etc.).

CLEARING Maintain your garden by keeping the grass short and trimming any trees so that they have space between them without touching.

Educational points:

Comment anticiper et protéger son habitation ?



Combustible

Si possible, j'anticipe en évitant de coller du bois, fuel, bouteille de gaz, etc. aux murs de mon logement : leur présence pourrait intensifier le feu et le propager à mon habitation.



Débroussaillage

J'entretiens mon jardin: je coupe les herbes et j'élague les arbres pour qu'ils ne se touchent pas. L'objectif est d'éviter que le feu n'atteigne mon habitation. Dans les zones à risque, c'est une obligation.



Construction

Si j'habite dans une zone couverte par un plan de prévention du risque de feu de forêt, j'adapte ma maison pour ma sécurité (volet, gouttière, toiture, aération, etc.).

Before an accident happens, it is possible to take action and anticipate thanks to these 3 good practices.

3) End-of-game debriefing for the forest fires and wildfires box:

The activity leader goes back over the 12 good practices to adopt in the event of forest fires and wildfires, summarising the 4 riddles that were solved, and using the prevention poster as a reminder.

How to avoid starting a fire?



Feu et barbecue

J'organise les barbecues chez moi, sur une terrasse et loin de la végétation qui peut s'enflammer.



Cigarette et mégot

Je jette mes mégots dans un cendrier. Si je fume dans ma voiture, je reste vigilant : les cendres incandescentes peuvent partir depuis une fenêtre ouverte.



Travaux et étincelles

Je réalise mes travaux loin de la pelouse et des herbes sèches et je prévois un extincteur à portée de main en cas de départ de feu.

What to do in the event of a fire starting?



Alerter

Témoign d'un début d'incendie, je donne l'alerte en appelant le 112, le 18 ou le 114 (personnes malentendantes) et j'essaie de localiser le feu.



Se protéger

Je me mets à l'abri dans une habitation en attendant l'intervention des secours. La voiture n'est pas un abri sûr car elle pourrait s'enflammer.



S'informer

Je reste informé de la situation et me conforme aux consignes des secours et/ou de la mairie.

How to protect your home in the event of fire?



Tuyau d'arrosage

Avant l'arrivée du feu, je rentre mon tuyau d'arrosage. Il pourra être utile après le passage du feu, pour éteindre les dernières braises.



Aération

Je bouche les aérations et les bas de porte pour m'assurer que les fumées toxiques et les flammèches ne puissent pas pénétrer à l'intérieur de mon habitation.



Linge humide

Je me couvre le nez et la bouche d'un linge humide pour me protéger de la fumée.

How to protect your home in anticipation?



Combustible

Si possible, j'anticipe en évitant de coller du bois, fuel, bouteille de gaz, etc. aux murs de mon logement : leur présence pourrait intensifier le feu et le propager à mon habitation.



Débroussaillage

J'entretiens mon jardin: je coupe les herbes et j'élague les arbres pour qu'ils ne se touchent pas. L'objectif est d'éviter que le feu n'atteigne mon habitation. Dans les zones à risque, c'est une obligation.



Construction

Si j'habite dans une zone couverte par un plan de prévention du risque de feu de forêt, j'adapte ma maison pour ma sécurité (volet, gouttière, toiture, aération, etc.).

RAINFALL AND FLOODING BOX

1) Opening the rainfall and flooding box:

In groups, players try to figure out the answers to the 4 riddles that will open the box by using the game booklet provided to them (see the first 3 pages). Once the wheels have been unlocked on each side of the box, players ask the activity leader to come and check the answers together.

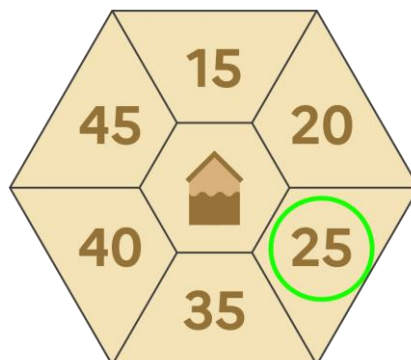
> **Printed box version:** Players need to provide their answers on a specific sheet - "Printed box: opening the box". The questions are identical to those needed to open the wooden box. Once the players think they have found the right answers, they ask the activity leader to come and validate their answers so they can then move on to the next step.



Answers to the riddles to open the box:

Players need to use their game booklet (1st and 2nd pages) as they try to open the box:

1. "Out of 100 people in France, how many live in an area at risk of flooding?" : **25**

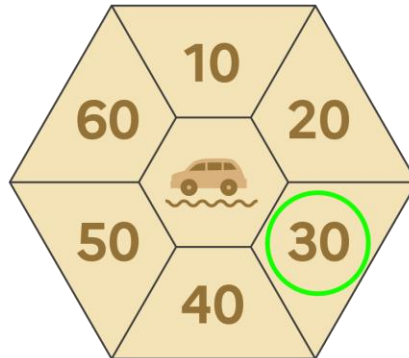


Answer in the prevention text (1st page of the game booklet):

“1 in every 4 people in France live in an area at risk of flooding.”

As detailed in the introduction, today, 1 in every 4 people in France live in an area at risk of flooding. Flooding is mainland France’s number 1 natural risk.

2. “How many centimetres of water does it take to wash away a car?” : **30**

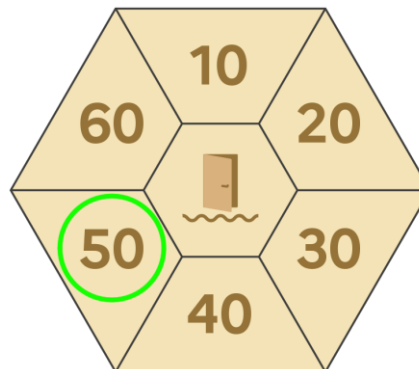


Answer in the prevention text (1st page of the game booklet):

“A car can be washed away in just 30 cm of water.”

As detailed in the introduction, a car can be washed away in just 30 cm of water. You are therefore advised not to go out in your car when Météo-France announces an episode of heavy rainfall, or if a warning has been issued (Vigicrues warning) that a waterway has overflowed.

3. “How many centimetres of water does it take to block a door closed?” : **50**

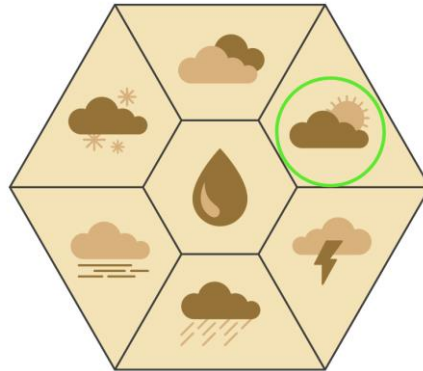


Answer in the prevention text (1st page of the game booklet):

“A door will be blocked shut in 50 cm of water.”

As detailed in the introduction, a door can be blocked shut in 50 cm of water. During periods of heavy rainfall or floods, the right thing to do is to go inside a building and take shelter upstairs. To be fully prepared, a 72-hour emergency kit can be kept in a room upstairs (in the attic for example).

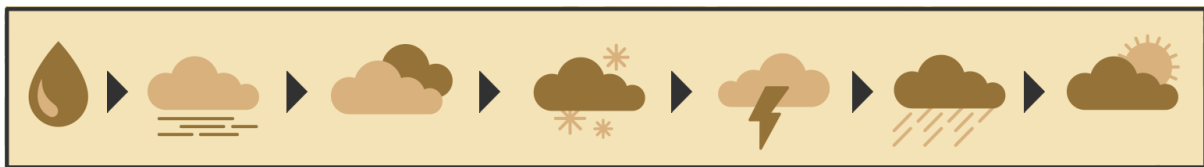
4. "Which symbol marks the end of this riddle on the box?" : **cloud and sun**



Answers on the sides of the box:

The symbols on the 6 sides of the box (or on the sheet for the printed version) together form a logical sequence of events: the second of one pair matches the first of the next pair, forming a sequence of events. The events begin with a drop of water and end with the sun.

Please note: don't hesitate to look at the box from all angles to make sure you don't miss a symbol.



2) The riddles of the rainfall and flooding box




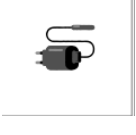



Once they have opened the box, players will discover the 3 riddles inside. The riddles should be solved in the following order (logical order of events, to make the task easier).

- 1) 72-hour emergency kit
- 2) Vigicrues game (or optical illusion for the printed version)
- 3) Memory game



Riddle no. 1 (72-hour emergency kit): “How can I be prepared following a flood warning?”

Players are given 18 tiles (illustration on the front, name on the back):

- | | | | |
|---|---|---|---|
|  | Battery powered radio (with spare batteries) to keep up-to-date with instructions from public authorities | | |
|  | Basic tools (pocket knife, tin opener, etc.) | | |
|  | Photocopies of important documents in a waterproof plastic sleeve (proof of identity, prescriptions, etc.) | | |
|  | Phone charger |  | Prescription glasses (extra pair) |
|  | Medication |  | Warm clothing and a survival blanket |



Plenty of drinking water (6 litres per person in bottles)



First aid kit (disinfectant, plasters, bandages, etc.)



An extra set of keys for your car and house



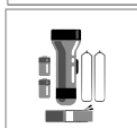
Games to keep you occupied



Cash (cash machines might be out of order)



Non-perishable food items that do not require cooking (tins, baby food, pet food, etc.)



Torch (with spare batteries), candles, a lighter or matches



Microwave



Bank card



Bananas



Proof of identity

Answers to riddle no. 1 (72-hour emergency kit):

All the items should be included in the kit, except for these 4:



Perishable food item that will not keep for one year



Cash machines might be out of order



Too big and power source might be either unavailable or too dangerous to use



Keep your proof of identity for daily use, the kit is only in case of emergency

Additional information for the activity leader to provide:

Power cuts, no access to gas and running water, blocked roads: when we experience a major disaster, the first 72 hours are often the most critical. Prepare a 72-hour emergency kit beforehand so you can stay at home and have access to everything you need until the emergency services arrive. This kit could also be useful in the event of a sudden departure.

Your 72-hour emergency kit should be kept in a place where it can be accessed easily and as quickly as possible, and well away from any rising water. For example, it shouldn't be stored in a cellar or basement.

Riddle no. 2 (Vigicrues): “How can I keep up-to-date in the event of a flood risk?”

Players are given a frame with 16 windows that each show a snippet of text.

They are also given 4 long tabs with a window that are used to decipher 4 educational points by sliding them into the top of the frame. The educational points are divided into 4 parts and then mixed up on each line.

The top of the frame,
where the tabs are
inserted

The long tabs with a
window to insert into
the top of the frame



The frame with 16
windows (and then 4
when the long tabs are
inserted into the frame)

Answers to riddle no. 2 (Vigicrues):

- I will keep up-to-date with the situation and observe instructions issued by the emergency services and/or the local council
- I will keep an eye on the rising waters via *Vigicrues* and the weather forecast
- I will not go down into a basement and I will take shelter above ground.
- I will keep away from waterways, riverbanks and bridges.

Additional information for the activity leader to provide:

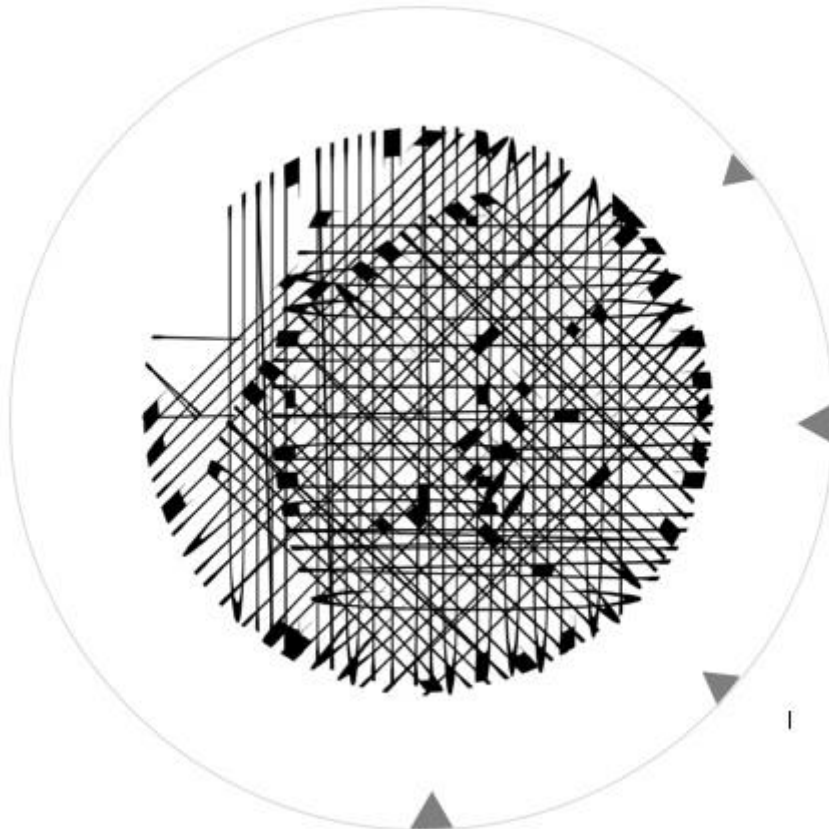
In France, more than 17 million people are exposed to a risk of flooding. For the past 20 years, the website vigicrues.gouv.fr has provided up-to-date information about the risk of France's main waterways overflowing. A free mobile application was created in 2022, to provide warnings directly on your telephone.

Vigicrues is an official public information service that was created in 2006, to inform people of the flood risks in France. This service monitors France's main waterways, representing 23,000 km and covering 75% of the population living in areas at risk of flooding. Its role is to notify local authorities, the media and the general public, of any risks of flooding in the next 24 hours.

Printed box version: Riddle no. 2 is replaced by an optical illusion.

For this riddle, player are given a disc that can be used to find 4 compartments that can save lives.

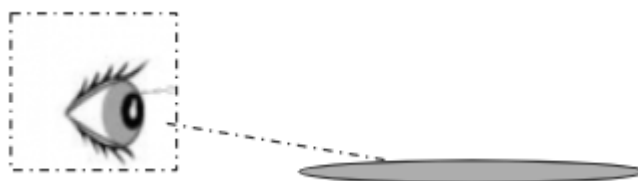
The disc -



Answers to riddle no. 2 (optical illusion):

For the first step, players have to figure out that the pairs of symbols on the two boards need to be matched up, by placing one on top of the other, as illustrated here.

The idea is to look down across the surface of the disc, positioning yourself opposite each of the 3 points.



Possible hints for the activity leader to provide: “Sometimes the answer is right under our nose”

The correct answers are therefore in this order:

- 1- *Camp at school*
- 2- *A night at the office*
- 3- *Dinner in the attic*
- 4- *Leave the car behind*

Educational points:

These four good practices are still not common knowledge throughout France:

- “*Camp at school*”, because you are not advised to pick up children from school or daycare in a flood, they will be safe where they are;
- “*A night at the office*”, because during a flood, you are advised to stay inside a building, upstairs;
- “*Dinner in the attic*”, because during a flood, you are advised to go inside a building, and take shelter upstairs;
- “*Leave the car behind*”, because during a flood, you will need to avoid travelling around, whether on foot or by car, because just a few centimetres of water is enough to sweep away a car.

Riddle no. 3 (memory game): “What are the good practices to remember in the event of flooding?”

18 tiles are placed face down on the table. The aim of the game is to find the pairs. Players turn over the tiles two at a time. If they do not match, they have to be placed back on the table, face down. When a player finds a pair, a new good practice is revealed. Each pair corresponds to a good practice.

Answers to riddle no. 3 (memory game):



Do not use your car, just a few centimetres of flowing water is enough to sweep away a car



Leave your children at school or daycare centre. They will be safe there.



Take shelter upstairs



Look out for any vulnerable or isolated people. Communicate via SMS.



Do not go down into basements. Take shelter above ground.



Keep up-to-date with the situation and observe instructions issued by the emergency services and/or the local council



Stay away from waterways, riverbanks and bridges, and do not take shelter under a tree, to avoid the risk of lightning



Cut off any gas, electricity and heating supply, without putting yourself at risk



Avoid any travelling, either on foot or by car, and stay inside or go inside a building

3) End-of-game debriefing for the rainfall and flooding box:

The activity leader goes back over the 9 good practices to adopt in the event of forest fires and wildfires, summarising the 3 riddles that were solved, and using the prevention poster as a reminder.



GOUVERNEMENT

Liberté
Égalité
Fraternité

RAINFALL - FLOODING



Postpone any trips out, whether on foot or by car.



Leave your children at school or daycare centre. They will be safe there.



Stay indoors or go inside a building and move away from the ground floor, go upstairs.



Cut off any gas, electricity and heating supply, without putting yourself at risk.



Do not use your car, just a few centimetres of flowing water is enough to sweep away a car.



Do not go down into basements. Take shelter above ground.



Stay away from waterways, riverbanks and bridges, and do not take shelter under a tree, to avoid the risk of lightning.



Keep up-to-date with the situation and observe instructions issued by the emergency services and/or the local council.



Look out for any vulnerable or isolated people. Communicate via SMS.

LET'S
BEHAVE
RESPONSIBLY
pluie-inondation.gouv.fr



VIGICRUES