AGENCE

OBSERVER'S GUIDE
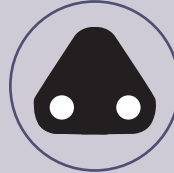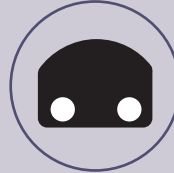
NFB ONE
EDUCATION

ACTIVITY 1 – The Simulation

CONSIDERATIONS:

Do you think we as humans have programs that we follow to ensure our survival? What might they be?	What do you think it means for humans to "live according to our programming"?	What impact do you think "learning" might have on the Agents' ability to cooperate?

ACTIVITY 2 – Learning vs. Programming

CLIP ONE: Living According to Programming

OBSERVATIONS					
What did you notice about the behaviour of the Agents in the simulation?					
How did the flower impact their behaviour?					
Which Agents fell in the simulation? How did they fall?					

ACTIVITY 2 – Learning vs. Programming

CLIP TWO: Learning to Interact

OBSERVATIONS					
What did you notice about the behaviour of the Agents in the simulation?					
How did the flower impact their behaviour?					
Which Agents fell in the simulation? How did they fall?					

ACTIVITY 2 – Extension

Reinforcement learning is the training of machine-learning models to make a sequence of decisions… In reinforcement learning, an artificial intelligence faces a game-like situation. The computer employs trial and error to come up with a solution to the problem. To get the machine to do what the programmer wants, the artificial intelligence gets either rewards or penalties for the actions it performs. Its goal is to maximize the total reward. (deepsense.ai)

1. What rewards or penalties do you think the programmer may have trained into the reinforcement learning (RL) Agents in this simulation?

2. How might rewards impact human behaviour in the physical world?

ACTIVITY 3 – Outside the Simulation

INQUIRY QUESTION: Write the question you will try to answer through your exploration

(e.g.: What will be the impact of having all RL Agents in the simulation?)

TRIAL #1

RL AGENTS (delete the Agents below who are not RL Agents)	# OF FLOWERS PLANTED	FALLEN AGENTS (record how the Agents fell next to the image)	FINAL OUTCOME
		Add notes here...	
		Add notes here...	
		Add notes here...	
		Add notes here...	
		Add notes here...	

ACTIVITY 3 – Outside the Simulation

INQUIRY QUESTION: Write the question you will try to answer through your exploration

(e.g.: What will be the impact of having all RL Agents in the simulation?)

TRIAL #2

RL AGENTS (delete the Agents below who are not RL Agents)	# OF FLOWERS PLANTED	FALLEN AGENTS (record how the Agents fell next to the image)	FINAL OUTCOME
		Add notes here...	
		Add notes here...	
		Add notes here...	
		Add notes here...	
		Add notes here...	

ACTIVITY 3 – Outside the Simulation

INQUIRY QUESTION: Write the question you will try to answer through your exploration

(e.g.: What will be the impact of having all RL Agents in the simulation?)

TRIAL #3

RL AGENTS (delete the Agents below who are not RL Agents)	# OF FLOWERS PLANTED	FALLEN AGENTS (record how the Agents fell next to the image)	FINAL OUTCOME
		Add notes here...	
		Add notes here...	
		Add notes here...	
		Add notes here...	
		Add notes here...	

FINAL THOUGHTS

Considering your observations of Agent behaviour, what conclusions might you draw to answer our Guiding Questions: **How and why do we make the decisions that we do? What factors might impact our decision-making?**

POSSIBLE CONCLUSIONS: