

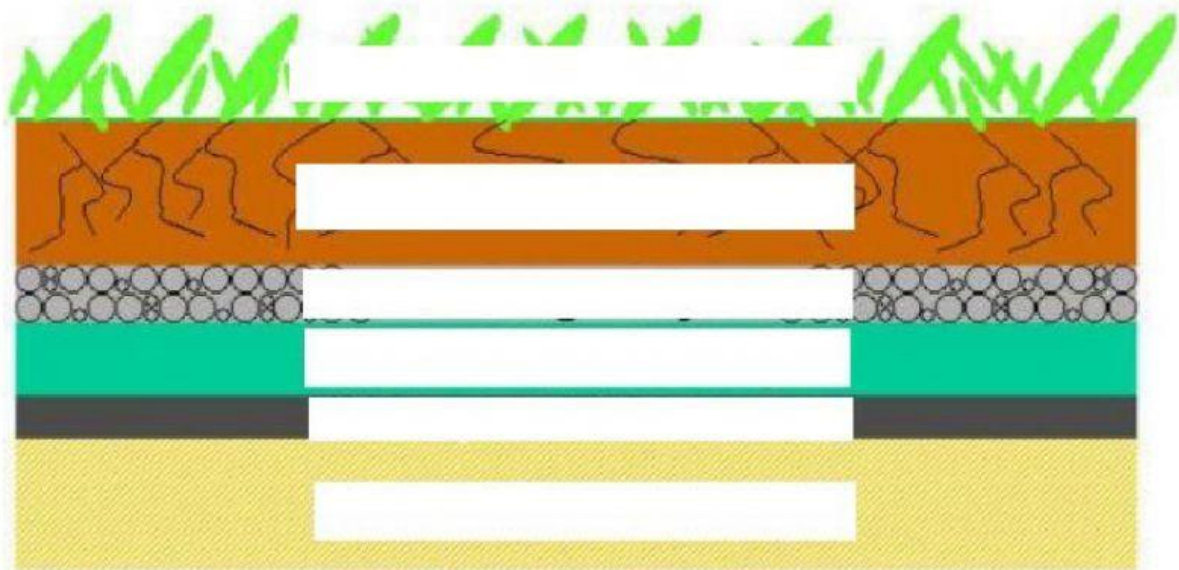
## GREEN ROOFTOPS



### Activity 1: The structure of a green rooftop (Tuesday, May 19<sup>th</sup> 2020)

Complete with the following elements:

drainage layer (=> *couche*) – plant material layer – roof construction –  
soil (=> *sol / terre*) layers – water retention layer – waterproof membrane



## Activity 2: The benefits of green rooftops (Text)

### Text: The Benefits of green rooftops

1. Read the text below and complete the grid with the number of one of the benefits described in the text.

| Reformulation   | Benefit n° ... |
|---|----------------|
| Green roofs last longer.  |                |
| Green roofs are energy efficient.   |                |
| Green roofs can serve as habitat.   |                |
| Green roofs can help to regulate water runoff (=> <i>écoulement</i> ) in case of bad weather. |                |
| Green roofs provide extra space.  |                |
| Green roofs improve air quality.  |                |
| Green roofs create jobs.  |                |

2. For each benefit mentioned in the text, tick the potential consequences.

| Consequences   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|--|---|---|---|---|---|---|---|
| It helps / saves / protects the environment.                         |   |   |   |   |   |   |   |
| Urban life is more pleasant, more bearable (=> <i>supportable</i> ). |   |   |   |   |   |   |   |
| It saves money.  |   |   |   |   |   |   |   |
| It boosts the economy.   |   |   |   |   |   |   |   |

Planting the rooftops of urbanized areas brings many benefits to public, private, economic and social sectors, as well as to the local and global environments. The benefits described below can be achieved by virtually all green roof systems and designs.

1. In summer, the green roof protects the building from direct solar heat. In winter, the green roof minimizes heat loss through added insulation<sup>1</sup> on the roof. Energy conservation translates into<sup>2</sup> fewer greenhouse gas emissions.
2. Plant leaves trap<sup>3</sup> dust particles from the air, and evapotranspiration cools ambient temperatures.
3. As undisturbed areas, rooftops can serve as refuge for creatures that struggle<sup>4</sup> for survival.
4. Green roofs cover the waterproofing membrane, protecting it from UV rays and extreme daily temperature fluctuations. This protection extends the lifespan of the waterproofing twice as long as conventional roofing.
5. Green roofs make the most of unused space within the increasing density of our cities. Rooftops can be developed into social and recreational spaces and used for urban agriculture.
6. A new industry represents a new market that will provide employment opportunities.
7. Green roof growing media retain rainwater and, together with plants, return a portion of this water to the atmosphere through evaporation and transpiration (evapotranspiration).

Adapted from <https://commons.bcit.ca>

<sup>1</sup> Insulation => isolation

<sup>2</sup> Translates into => se traduit par

<sup>3</sup> Trap => capture

<sup>4</sup> Struggle = fight

