

WHAT IS “FIRE BEHAVIOUR”?



CITIZEN ENGAGEMENT



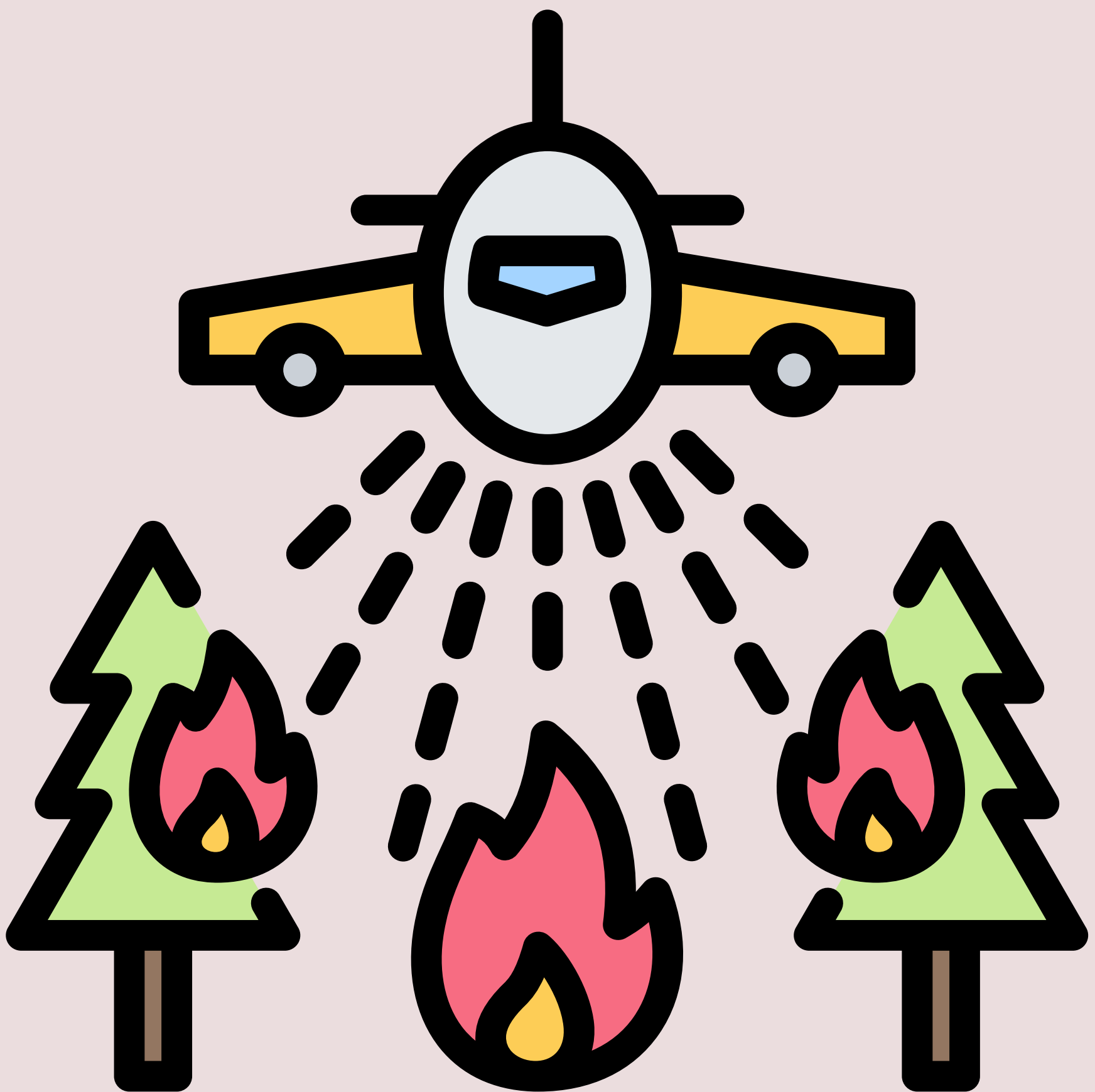
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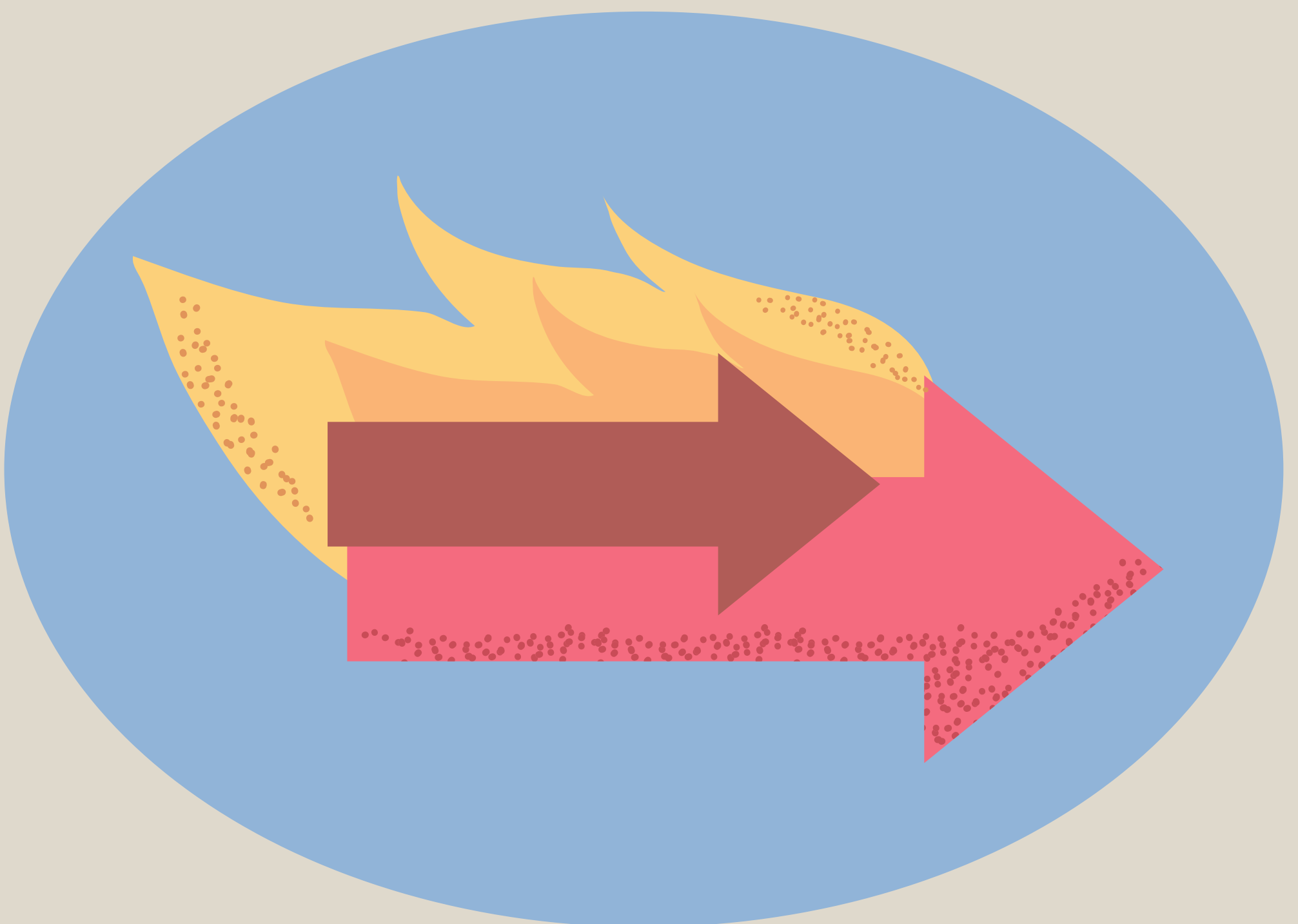
Fire behaviour refers to the manner in which a fire reacts to the influences of fuel, weather, and topography. It encompasses various characteristics and dynamics of the fire, including its spread rate, intensity, flame length, and the pattern of its advance through the landscape.

Understanding fire behaviour is crucial for predicting how a fire will progress, which informs firefighting strategies, evacuation plans, and measures to minimize damage and loss of life. Here are the key aspects of fire behaviour:



RATE OF SPREAD

This is the speed at which a fire moves across the landscape. It can be influenced by wind, slope, fuel type, and fuel moisture, among other factors.



INTENSITY

Fire intensity refers to the energy output of a fire, often described in terms of the heat released. It is affected by the amount and type of fuel, weather conditions, and fire size. High-intensity fires are more challenging to control and can cause greater ecological and property damage.



FLAME LENGTH

This describes the visible portion of the fire and can be an indicator of fire intensity. Longer flames generally indicate a more intense fire, which can be more difficult to suppress and may pose greater risks to firefighters and structures.



FIRE TYPE

The behaviour of a fire also depends on whether it is a surface, crown, or ground fire, each of which interacts differently with the environment and requires different strategies to manage.



IGNITION PROBABILITY

This refers to the likelihood of a fire starting, based on the presence and condition of fuels and the prevailing weather conditions.

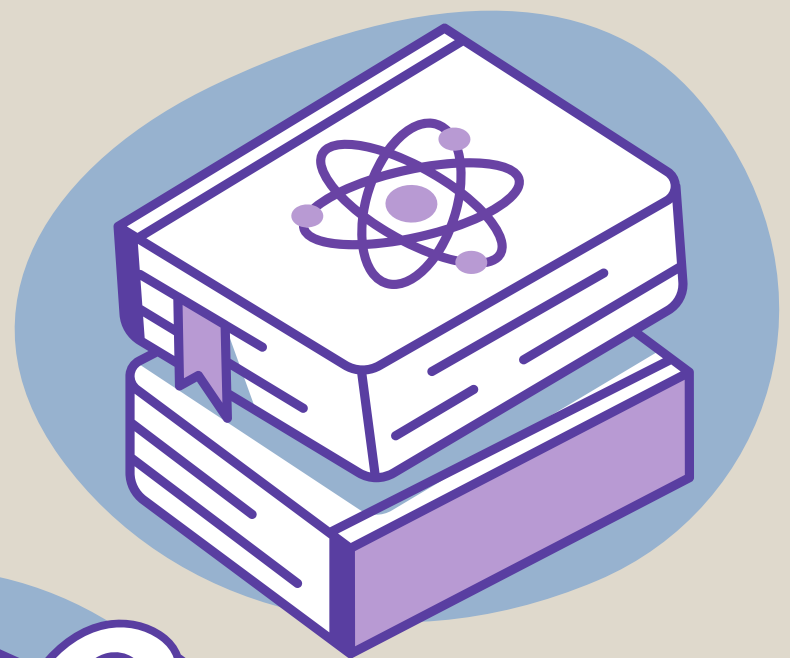
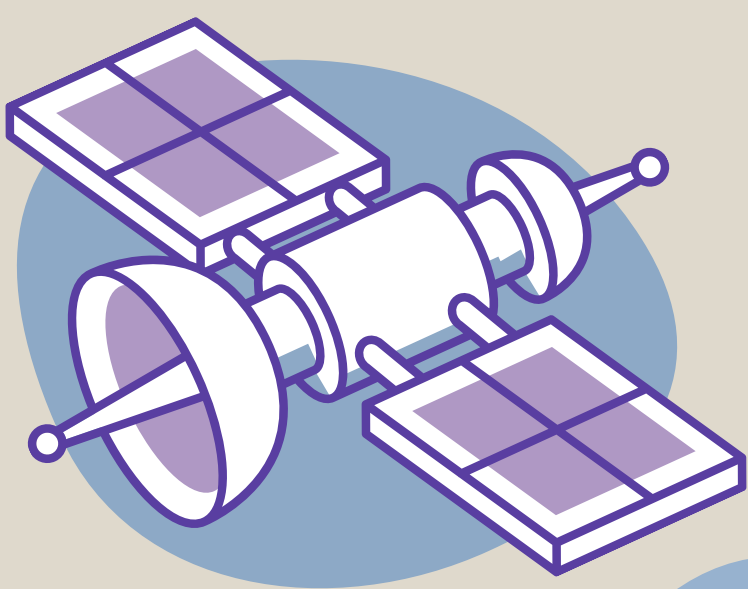


FIRE DIRECTION AND SHAPE

The direction a fire moves and its shape can be influenced by wind direction, topography, and barriers to fire spread, such as roads, rivers, or previously burnt areas.



Understanding fire behaviour is a complex science that involves physics, chemistry, meteorology, and ecology.





Firefighters, land managers, and scientists study fire behaviour to improve wildfire management and mitigation efforts, aiming to reduce the impacts of wildfires on communities, ecosystems, and economies.