

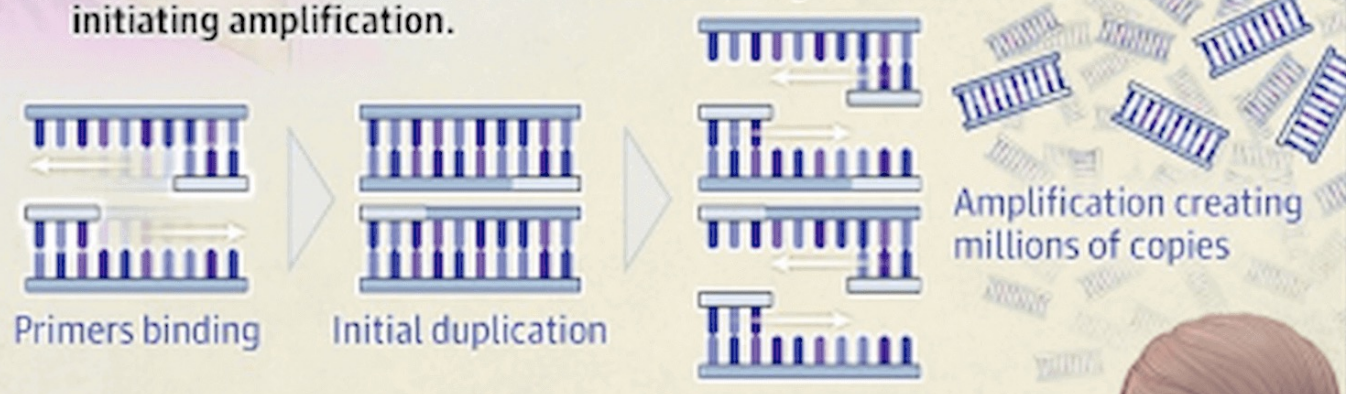
## How does PCR testing for COVID-19 work?

Polymerase chain reaction (PCR) testing can detect even very small amounts of viral genetic material in a sample by duplicating it many times over through a complex laboratory process called amplification.

- 1 A test sample is swabbed from the back of the nose and processed to isolate genetic material.



- 2 Small pieces of specifically engineered genetic material, called primers, are introduced and bind to the isolated viral genetic material, initiating amplification.

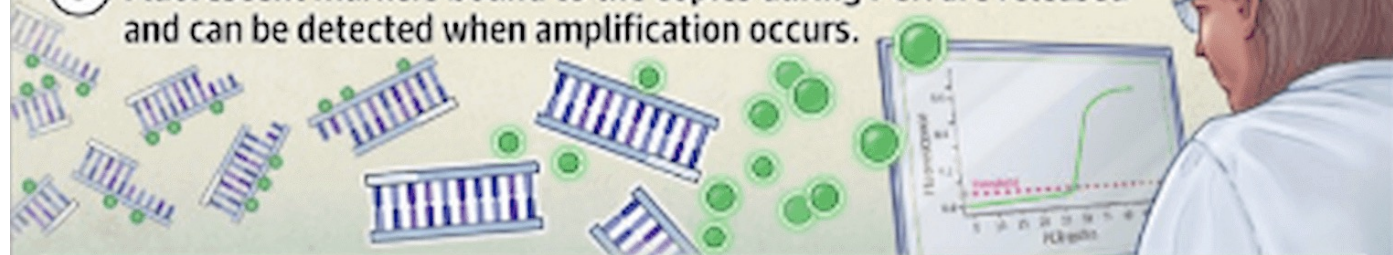


Primers binding

Initial duplication



3 Fluorescent markers bound to the copies during PCR are released and can be detected when amplification occurs.



**Positive result**

When there is viral genetic material in the sample, amplification occurs, releasing enough fluorescent markers to be detected.

**Negative result**

If there is no viral genetic material in the sample, amplification will not occur and no fluorescent markers will be detected.



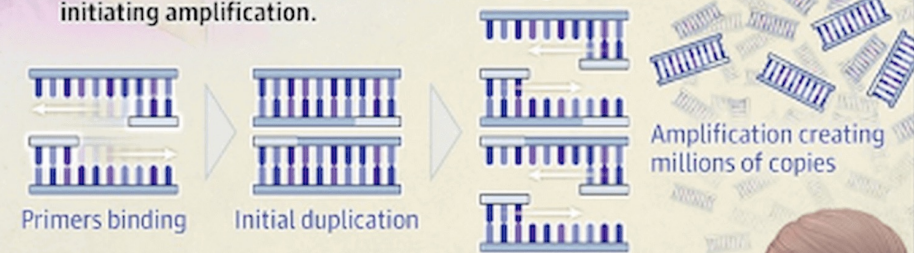
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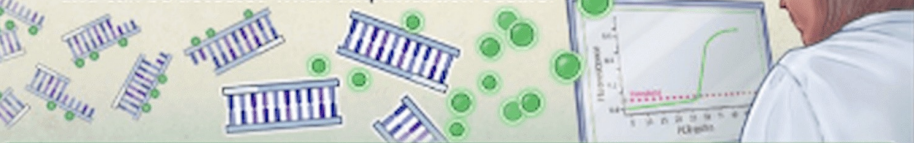
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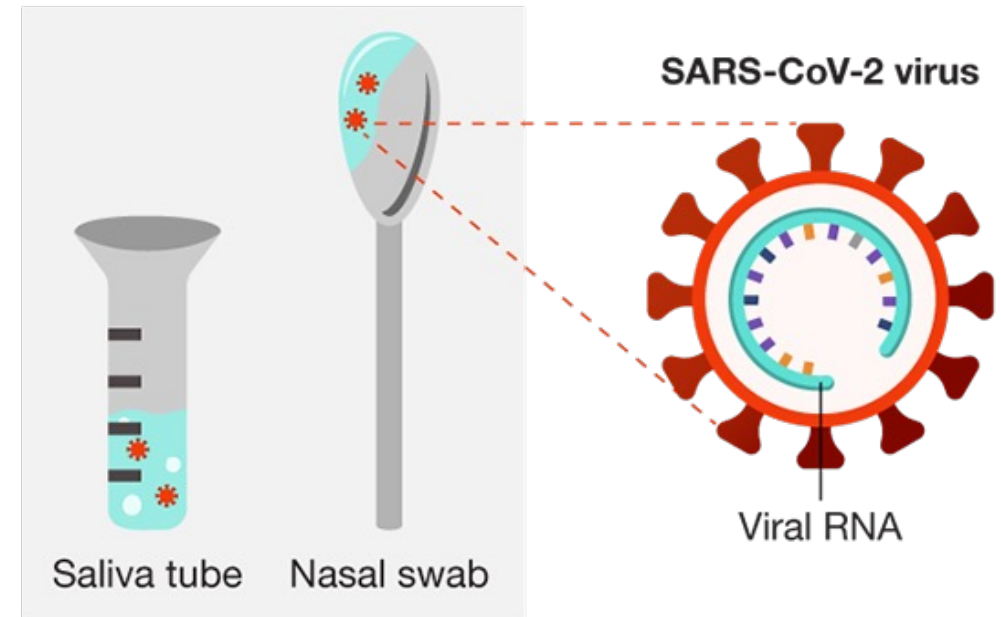
### Positive result

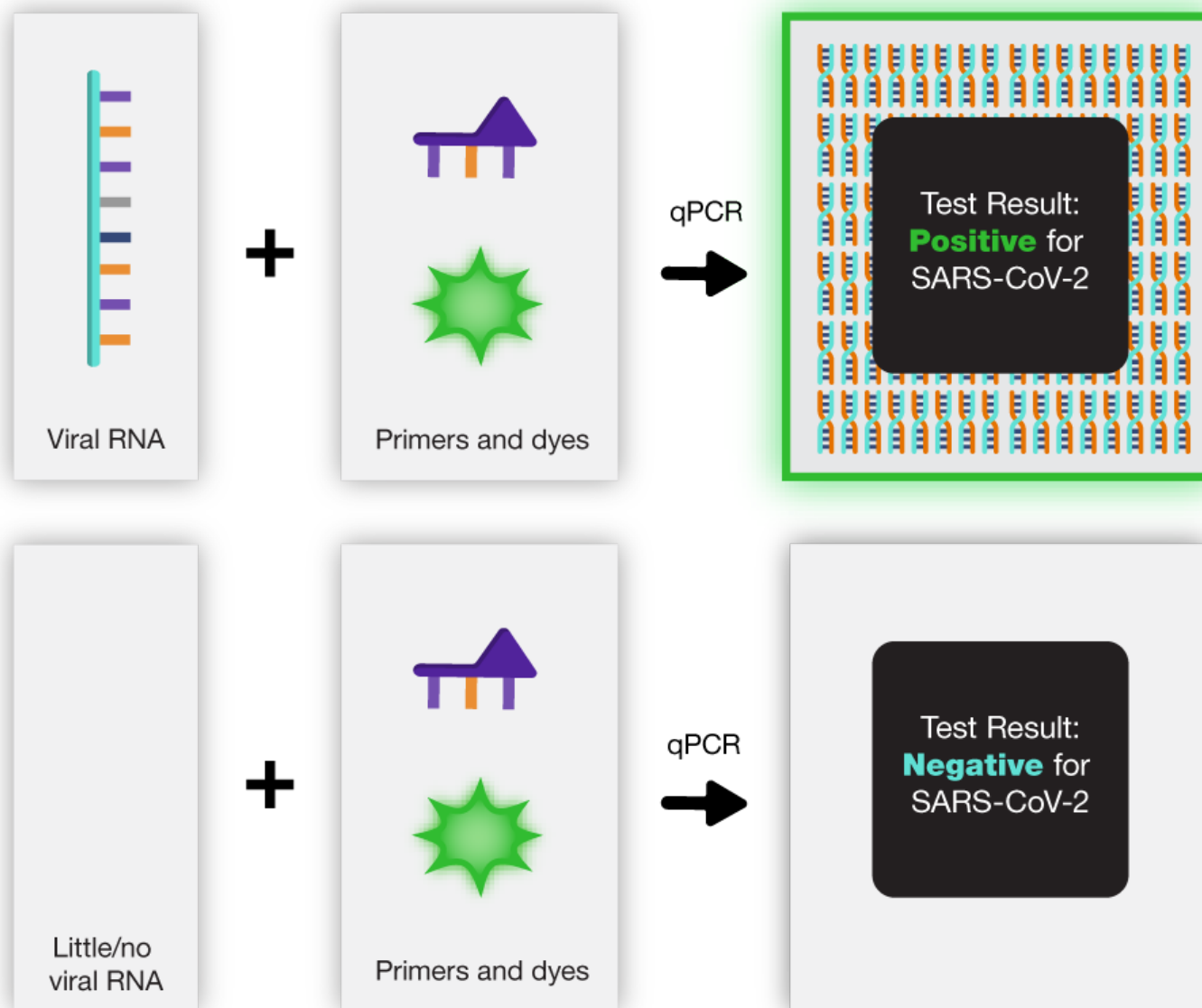
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### Negative result

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## Sample collection





La protéine virale Spike est non-soi  
(not-self) → déclenchement d'une  
réponse immunitaire

