To install and run Apache Kafka on Windows 10, you can follow these steps:

1. **Download Kafka**:
   * Go to the Kafka download page: <https://kafka.apache.org/downloads>
   * Under the "Binary downloads" section, select the latest stable version (e.g., Kafka 2.8.0 at the time of my knowledge cutoff) and download the ZIP file.
2. **Extract Kafka**:
   * After the download is complete, extract the contents of the downloaded ZIP file to a directory of your choice (e.g., **C:\kafka**).
3. **Set Up Environment Variables (Optional)**:
   * Optionally, you can set up environment variables to make it easier to run Kafka commands from any directory:
     + Add the Kafka bin directory to the system's PATH variable:
       - Open the Start menu, type "environment variables," and select "Edit the system environment variables."
       - Click the "Environment Variables" button.
       - Under "System variables," find the "Path" variable, click "Edit," and add the path to the Kafka bin directory (e.g., **C:\kafka\bin**).
4. **Start ZooKeeper**:
   * ZooKeeper is a prerequisite for Kafka. Open a new command prompt (terminal) and navigate to the Kafka directory where you extracted the files (e.g., **C:\Kafka\kafka\_2.13-2.8.1\bin\windows**).
   * Run the following command to start ZooKeeper:

.\zookeeper-server-start.bat C:\Kafka\kafka\_2.13-2.8.1\config\zookeeper.properties

**Start Kafka Broker**:

* In a new command prompt (terminal), navigate to the Kafka directory again (**C:\Kafka\kafka\_2.13-2.8.1\bin\windows**).
* Run the following command to start the Kafka broker:

.\kafka-server-start.bat C:\Kafka\kafka\_2.13-2.8.1\config\server.properties

**Create a Topic**:

* In a new command prompt (terminal), navigate to the Kafka directory again (**C:\Kafka\kafka\_2.13-2.8.1\bin\windows**).
* Run the following command to create a topic named "test-topic" with one partition and a replication factor of 1:

.\kafka-topics.bat --create --topic test-topic --bootstrap-server localhost:9092 --partitions 1 --replication-factor 1

**Send and Receive Messages**:

* To send and receive messages, you can use the Kafka console producer and consumer.
* In a new command prompt (terminal), navigate to the Kafka directory again (**C:\kafka**).
* Run the following command to start the console producer, where you can send messages to the "test-topic":

.\kafka-console-producer.bat --topic test-topic --bootstrap-server localhost:9092

* In another command prompt (terminal), navigate to the Kafka directory again (**C:\kafka**).
* Run the following command to start the console consumer, where you can receive messages from the "test-topic":

.\kafka-console-consumer.bat --topic test-topic --bootstrap-server localhost:9092 --from-beginning