

## Enrich

# Clouds

Read the passage and look at the map below it. Then use a separate sheet of paper to answer the questions that follow the map.

## Contrails

Airplanes and jets release a lot of water vapor in the exhaust from their engines. When aircraft fly at high altitudes where temperatures are low, the water vapor condenses immediately into water droplets. These droplets form a cloud that trails behind the plane. This cloud is called a contrail, or condensation trail. When large numbers of contrails occur in an area, they may blend together to form a sheet of cirrus clouds, although the contrails evaporate quickly if the air is dry.

One area in which large numbers of contrails appear is the 860-kilometer stretch between Detroit, Michigan and Des Moines, Iowa. Every day, hundreds of jet planes fly between these two cities.



1. What can you infer about the height at which jet airplanes fly based on the fact that their contrails form cirrus clouds? Explain.
2. Weather scientists think that jet contrails between cities such as Detroit, Michigan and Des Moines, Iowa may be changing the weather in these areas. Explain how contrails could change the weather.
3. When a plane flies through a cloud, it sometimes leaves a clear trail called a distrail, or dissipation trail. Why do you think distrails form? (*Hint: Plane engines get very hot and heat the air they fly through.*)

