

WHIL.T4
Italian Campaign 1943-1945



Essential Questions:

- Why was capturing Sicily strategically important to the Allies?
- Why was the Italian Campaign so difficult?

Overview: After Germany's defeat in North Africa, Hitler turns his attention to Eastern Front. This provides the opportunity to re-enter Europe thru Italy. Starting with the island of Sicily then eventually invading the Italian mainland at Taranto and Salerno. As the fighting continues in Italy until 1945 the Italian landscape is much different from North Africa for both the Axis and Allies. The vehicles in this gallery reflect some of the necessary adaptations for fighting in this part of the world

Materials:

Story Boards

M5 Stuart

M3A1 Scout Car

Schwimmwagen

Procedure:

Story Board: Have the students read the story board about The Rugged Road to Rome and ask what they think that means. Discussion should involve the difficult hilly and rocky terrain of Italy. The vehicles that worked great in the desert were not necessarily the best suited to the terrain here.

M5 Stuart tank: Have the students observe the M5 and ask them to identify anything on the tank that doesn't look familiar to them. After discussing any other objects that might be observed have the students focus on the metal strips circling the turret if not already done. Explain these are called grousers. Grousers were attached on to the main tank treads to give them extra traction in loose or rocky soil. The M5 is referred to as a light tank and trying to get up the hills in Italy would be challenging without this added traction.

For math or physics focused students here is the formula for grousers using terra-mechanics:

$$H = blc \left(1 + \frac{2h}{b} \right) + W \tan \phi \left(1 + 0.64 \left[\left(\frac{h}{b} \right) \cot^{-1} \left(\frac{h}{b} \right) \right] \right)$$

where:

H= soil thrust

b= track width

l= contact length

c = coefficient of cohesion (a soil property)

h= grouser height

W= gross vehicle weight

ϕ = angle of repose (a soil property)





M3A1 Scout Car: Keeping with the theme of adaption to the Italian hilly terrain have students focus on the roller at the front of the scout car. Ask the student what they think the purpose of it is. Discuss the answers and if needed direct them to understand the purpose of the roller was the vehicle was coming down a steep slope in order to prevent it from getting stuck in a narrow ditch or slope.



Schwimmwagen: Have the students observe the Schwimmwagen and discuss what they see to adapt to the varied terrain of Europe. Ask them what the advantages to such a vehicle are and if they can think of any modern vehicles that have those same advantages (ATVs, 4 Wheelers etc..)