

# SCIENTIFIC GAME FOR THE HIGH SCHOOL STUDENTS - TEACHER'S PRESPECTIVE

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**SEGRETARIATO GENERALE DELLA PRESIDENZA DELLA REPUBBLICA**



## **Presidential Estate of Castelporziano**



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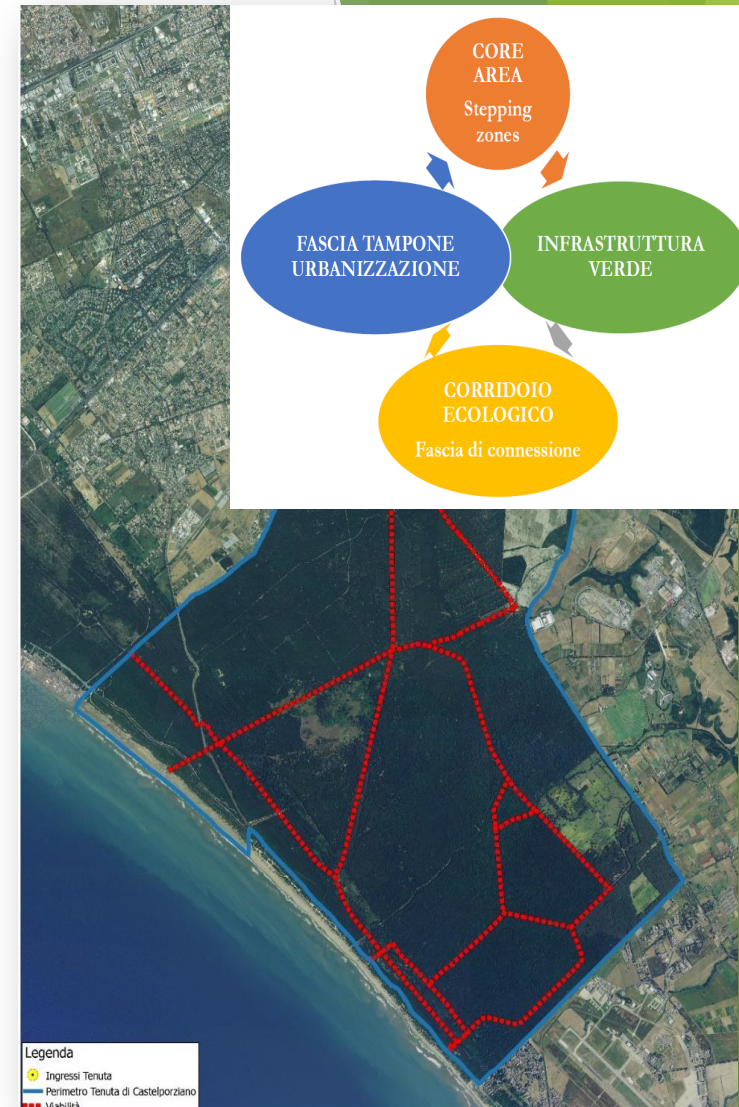
**INGV**



# TERRITORIAL FRAMEWORK

## Presidential Estate of Castelporziano:

- Located 25 Km from the center of Rome
- Extension of 6.068 ha (more than 60 km<sup>2</sup>)
- Altitude range 0 to 78 m over s.l.
- 3,1 km of costal line



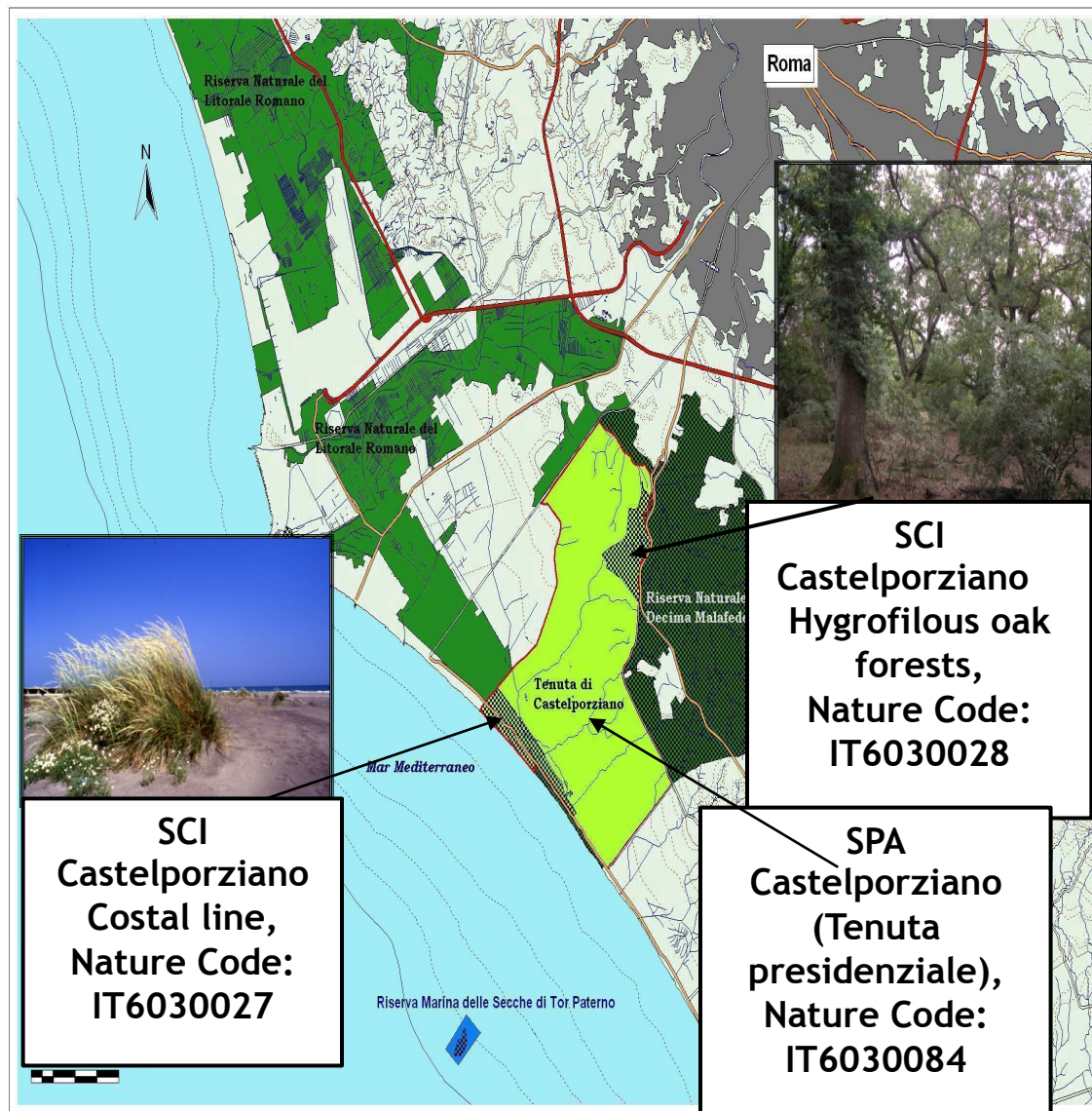
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# NATURA 2000 SITES

## Castelporziano Estate represents one of the most important biodiversity hot spot in the Mediterranean coastal environment

- ▶ one SPA (*Special Protection Area*) under the Directive 79/409/EEC
- ▶ two SCI (*Sites of Community Importance*) under the Habitats Directive 92/43/EEC



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# **Inquiry-based Science Education**



# **Research Game**

**A student-centered, active learning approach focusing on questioning, critical thinking, and problem-solving.**

**It's associated with the idea: "Involve me and I understand."**



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# Inquiry-based Science Education



# Research Game

- **Teacher role: facilitator of learning**
- **Student role: active, independent learner**



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## Research Findings ↔ My experience

- Learning is mediated by a social environment in which learners interact with others.
- The ability to apply knowledge to new situations (transfer of learning) is affected by the degree to which students learn with understanding.
- It reinforces and builds several student skills in physical, emotional, and cognitive areas.



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## Research Findings ↔ My experience

- **Understanding science is more than knowing facts.**
- **Students build knowledge on what they already know (preconceptions)**
- **Students formulated new knowledge by modifying and refining their current concepts (misconceptions)**



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"Tell me and I  
forget.

Teach me and I  
remember.

Involve me and I  
will learn."



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**Thank you for your  
attention**