

GENESIS: The Scientific Quest for Life's Origin

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Chemical Evolution

Life arose by a natural process of “emergent complexity,” consistent with natural laws.

This hypothesis predicts that life began as a sequence of chemical steps.

Intelligent Design

Life is “irreducibly complex.”

Therefore, a supernatural designer must have formed it.

This hypothesis requires a combination of natural and supernatural processes.

THE “DEBATE”

“Both sides ought to be properly taught ... so people can understand what the debate is about.” G. W. Bush

“Intelligent design should not be taught in high school biology classes as an alternative to evolution.”

American Chemical Society

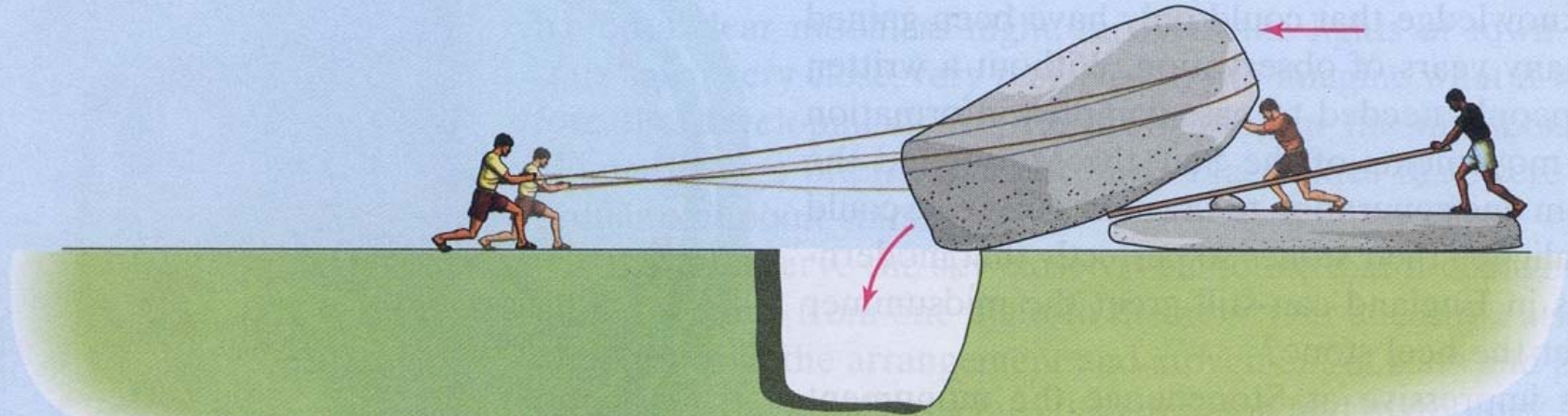
How Should Science Respond to ID?

Design a research program that demonstrates the natural transition from chemical simplicity to emergent complexity.

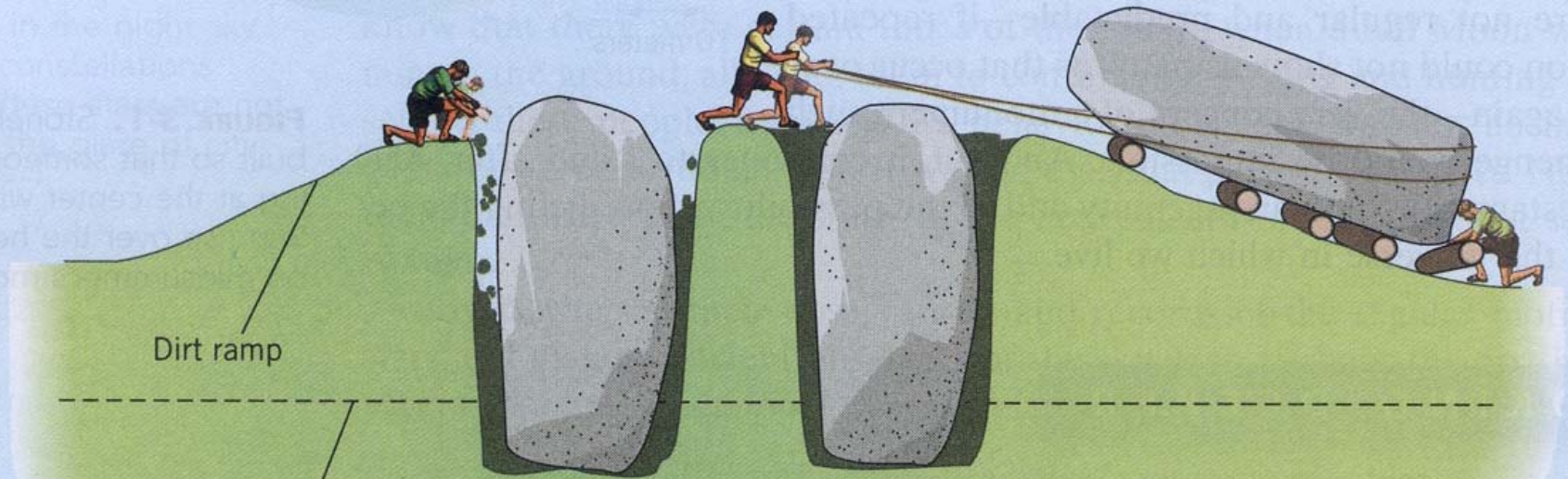
If biological complexity can be shown to arise spontaneously as the result of natural processes, then ID is unnecessary.

STONEHENGE





(a)



Dirt ramp

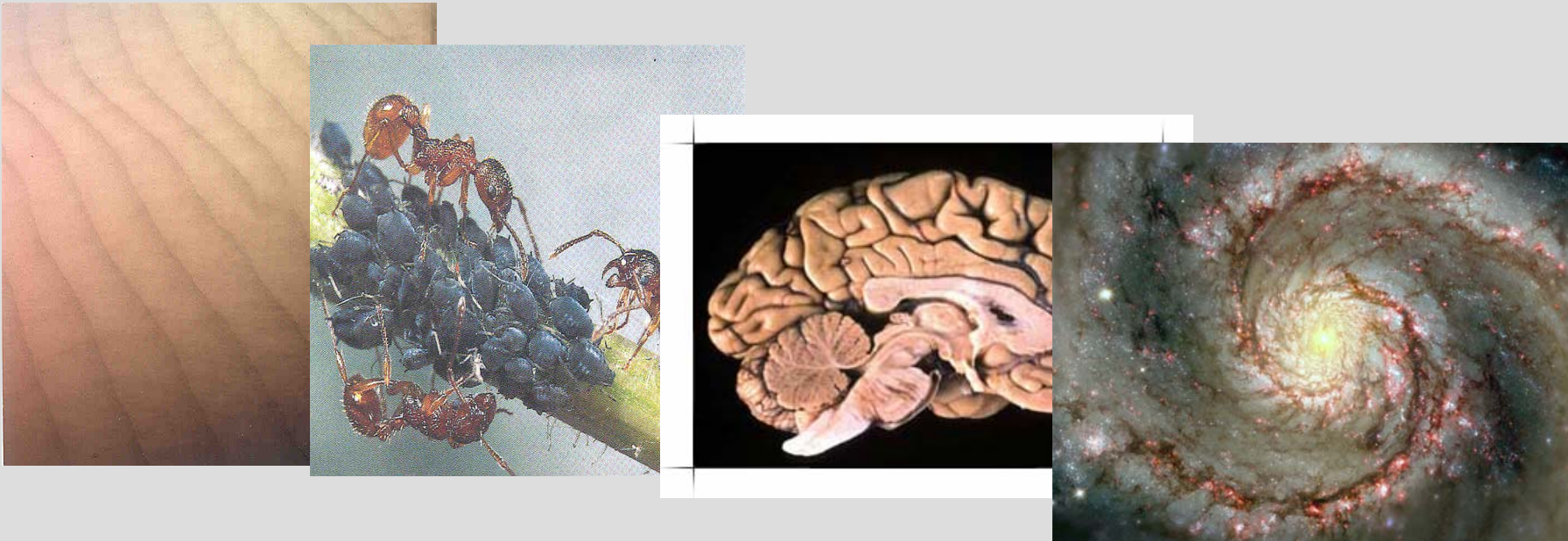
Initial ground level

(b)



What is Emergent Complexity?

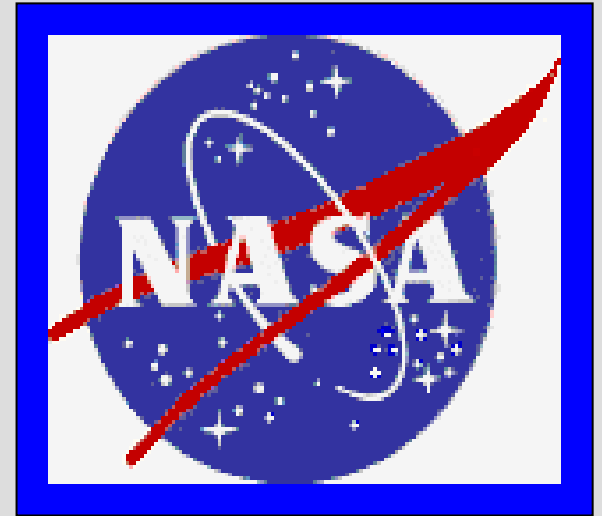
Emergent phenomena arise from interactions among numerous individual particles, or “agents.”



CONCLUSION

The origin of life on Earth is best understood in terms of a sequence of emergent chemical events, each of which added a degree of structure and complexity to the prebiotic world.





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