SAMR, In Context

Ruben R. Puentedura, Ph.D.

















Augmenting Human Intellect & Learning Capacity





One-to-One Technologies











AS WE MAY THINK





Tech acts as a direct tool substitute, with functional improvement

Substitution Tech acts as a direct tool substitute, with no functional change

Redefinition Tech allows for the creation of new tasks, previously inconceivable

Modification Tech allows for significant task redesign Transformation

Augmentation

Redefinition

Modification

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Substitution

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Aquatic Biomes

Aquatic biomes cover 75 percent of the surface of the Earth. The aquation d terrestrial biomes are similar in some ways

bi•ome | 'bī,ōm |

noun Ecology

a large naturally occurring community of flora and fauna occupying a major habitat, e.g., forest or tundra.

ORIGIN early 20th cent.: from BIO- 'life' + -OME



Some aquatic organisms are adapted to both conditions for parts of their lives, such as salmon and some eels, but it is more common for organisms to be confined to one of the two environments.

Aquatic environments have less variation globally than those on land. Taking a broad view (the lumper's perspective), there are four kinds of aquatic biomes: surface waters, deep waters, shores, and bottoms. Within these categories are a variety of distinctive marine and freshwater life zones that are frequently designated as separate biomes.





Interactive The latitudes of peak photosynthesis change with the seasons.

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EURADIAN CULLARED-DUVE

Streptopelia decaocto Locally common, exotic

121/2-13 in. (32-33 cm)

Recent colonizer of N. America from Caribbean but native to Eurasia; rapidly increasing and spreading. Slightly chunkier than Mourning Dove, paler beige, and with square-cut tail. Note narrow black ring on hindneck. Grayish undertail coverts. Three-toned wing pattern in flight.

SPOTTED DOVE

Streptopelia chinensis Uncommon, local, exotic

12 in. (30-31 cm)

Note broad collar of black and white spots on hindneck. A bit larger than Mourning Dove; tail rounded with much white in corners. Juvenile: Lacks collar, but can be told by shape of spread tail.

ROCK PIGEON (ROCK DOVE, DOMESTIC PIGEON)

Columba livia Common, exotic

121/2 in. (32 cm)

Typical birds are gray with *whitish rump, two black wing bars,* and broad, dark tail band. Domestic stock or feral birds may have many color variants.



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Substitution

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Social	Mobility	Visualization	Storytelling	Gamin
200,000 years	70,000 years	40,000 years	17,000 years	8,000 years
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Blending of Formal and Informal Learning



Importance of Digital Media Literacy

Learning Activities Outside Classroom Walls







Demand for Personalized Learning

Significant Challenges

Institutional Barriers to Emerging Technologies

Learning that Incorporates Real Life Experiences













Resources

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