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NOYCE 2016: Scratch Model

Our SCRATCH model shows is a simple representation of decomposition and growth. As students move the arrow over different sprites in the model, the sprites will “talk” asking questions and providing information to the user. The basic concept of decomposition and growth are important concepts in all areas of science (even if the terms are slightly different (radioactive decay, weathering, etc.) Our model demonstrates decomposition in a living environment setting while bring in other content areas. Earth science is touched on by having students list ways a rock can be turned into soil (physical and chemical weathering), the idea that matter is neither created or destroyed from physics is used to get students to think about what is happening to the tree as it decomposes (it doesn't just disappear-it is becoming part of the soil), chemistry could be brought in by connecting the idea that soil pH is affected by its composition. Math could also be involved by having students calculate rate of decay with a given scenario using/creating graphs to depict both rate of growth and loss of tree mass over time.