

| Central Science Standards Summary | | Grade 8 | 2011--- |
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| Teacher: | | | |
| Oregon Code | Science Standard Summary: | Notes: | |
| 6.1P.1 | Matter: Physical & chemical properties; measurement | | |
| 8.1P.3 | States of matter; motion & spacing of particles | | |
| 8.1P.2 | Periodic Table: elements organized by their physical & chemical properties | | |
| 7.1P.1 | Matter is made of atoms; elements are composed of a single kind of atom; compounds are composed of two or more different elements. | | |
| 8.1P.1 | Atomic models: types & arrangements of atoms determine the physical & chemical properties of elements & compounds. | | |
| 8.2P.1 | Physical & chemical changes; law of conservation of mass | | |
| 6.1L.1 | Cells' functions; relative complexity of cells, tissues, organs, and organ systems | | |
| 7.2L.1 | Cell organelles: cellular processes; obtaining the raw materials for those processes | | |
| 6.2L.1 | Cells, tissues, organs, & organ systems | | |
| 7.1L.1 | Reproduction; sexual & asexual; essential to the continuation of every species. | | |
| 8.1L.1 | Classification: by genetics & anatomical characteristics; infer evolutionary relationships | | |
| 7.1L.2 | Traits; inherited vs. learned; inherited traits passed to next generation; phenotype, genotype, chromosomes, & genes | | |

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| | Science Standard Summary for Gr 8 | Notes: |
| 7.2L.2 | Processes by which organisms obtain energy & materials for growth & metabolism. | |
| 6.2L.2 | Ecosystem: individual organisms & populations interaction; changes in populations are related to resources. | |
| 8.2L.1 | Natural selection: species change through the process; evidence for evolution. | |
| 8.3S.1 | Propose questions or hypotheses; use independent & dependent variables, & controls; collect relevant data. | |
| 8.3S.2 | Use relevant data; construct evidence-based explanation of scientific investigation; communicate conclusions; include possible sources of error; suggest new investigations based on analysis of results. | |
| 8.3S.3 | Scientific explanations & theories evolve as new information is available. | |
| 8.4D.1 | Define a problem that addresses a need; investigate possible solutions; use specified criteria, constraints, priorities, and trade-offs. | |
| 8.4D.2 | Design, construct, & test a proposed engineering design solution; collect relevant data; evaluate proposed design solution as to design & performance criteria, constraints, priorities, & trade-offs; identify possible design improvements. | |
| 8.4D.3 | New technology: requires considering societal goals, costs, priorities, and tradeoffs | |
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