
*The Mission of the Chardon Local Schools is High Achievement
for All Students, Where Learning is Our Most Important Work.*

Science Course of Study:
8th GRADE SCIENCE (General)
Revised January 2022



8th Grade Science

Committee Members: Amber Yeager & Brad McGovern

Strand: Earth and Space Science (Quarters 1 & 2)

Learning Standards:

8.ESS.1 The composition and properties of Earth's interior are identified by the behavior of seismic waves.

8.ESS.2 Earth's lithosphere consists of major and minor tectonic plates that move relative to each other.

8.ESS.3 A combination of constructive and destructive geologic processes formed Earth's surface.

8.ESS.4 Evidence of the dynamic changes of Earth's surface through time is found in the geologic record.

How Taught?

Teaching activities may include, but are not limited to:

- Students closely read select passages from documents to analyze text structure, development, and consequent meanings
- Teacher provides direct instruction, give feedback, and model critical thinking
- Small group and class discussions
- Cooperative learning groups
- Students to define, use, and connect to content area and based vocabulary
- Students analyze video content related to standards that provide a broader global perspective of content.
- Design and conduct lab-based investigations that connect content to real-life experiences.
- Provide opportunities for out of building excursions (field trips) to provide additional real world application of standards.
- Using technology and mathematics to improve investigations and communications.
- Utilize data to impact instruction

Materials:

board adopted worktext

Gizmo

Kahoot

Gimkit

Quizizz

Landform Models

Classroom Rock Samples

Lava Lamps

Virtual Lab Stations

Hands-on Labs

Videos

How Assessed?

Assessments may include, but are not limited to:

- Pre-Assessments (pre-tests, observation, questioning, diagnostics)
- Formative Assessments (entry/exit slips, mini analysis assignments, group work, discussions, homework/classwork, self and peer evaluations, checklists, guided notes, observations, quizzes, conferences, rubrics, lesson review questions, lab reports)
- Summative Assessments (formal essays, using rubrics; tests/exams, project, evaluation, demonstration, lab practicals)

How Re-Taught?

Re-teaching activities may include, but are not limited to:

- descriptive feedback on original task/assessment

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| | <ul style="list-style-type: none">● student examples of expectations● modeling● student self assessments● manipulatives● presenting the information again in a different way● review sessions● graphic organizers● small-group instruction● practice activities● computer tutorials / programs● peer tutoring● breaking down concept into smaller components● games and hands-on activities● cooperative learning● Universal Design for Learning principles offering students opportunities to experience and engage material in new and different ways |
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Strand: Physical Science; Nature of Science (Quarter 4)

Learning Standards:

8.PS.1 Objects can experience a force due to an external field such as magnetic, electrostatic or gravitational fields.

8.PS.2 Forces can act to change the motion of objects.

How Taught?

Teaching activities may include, but are not limited to:

- Students closely read select passages from documents to analyze text structure, development, and consequent meanings
- Teacher provides direct instruction, give feedback, and model critical thinking
- Small group and class discussions
- Cooperative learning groups
- Students to define, use, and connect to content area and based vocabulary
- Students analyze video content related to standards that provide a broader global perspective of content.
- Design and conduct lab-based investigations that connect content to real-life experiences.
- Provide opportunities for out of building excursions (field trips) to provide additional real world application of standards.
- Using technology and mathematics to improve investigations and communications.
- Utilize data to impact instruction

Materials:

board adopted worktext

Gizmo

Kahoot

Gimkit

Quizizz

Virtual Lab Stations

Hands-on Labs

Videos

Motion Tracks

Lab Quest Probes

Magnets and Electricity Demos

How Assessed?

Assessments may include, but are not limited to:

- Pre-Assessments (pre-tests, observation, questioning, diagnostics)
- Formative Assessments (entry/exit slips, mini analysis assignments, group work, discussions, homework/classwork, self and peer evaluations, checklists, guided notes, observations, quizzes, conferences, rubrics, lesson review questions, lab reports)
- Summative Assessments (formal essays, using rubrics; tests/exams, project, evaluation, demonstration, lab practicals)

How Re-Taught?

Re-teaching activities may include, but are not limited to:

- descriptive feedback on original task/assessment
- student examples of expectations
- modeling
- student self assessments
- manipulatives

- | | |
|--|--|
| | <ul style="list-style-type: none">● presenting the information again in a different way● review sessions● graphic organizers● small-group instruction● practice activities● computer tutorials / programs● peer tutoring● breaking down concept into smaller components● games and hands-on activities● cooperative learning● Universal Design for Learning principles offering students opportunities to experience and engage material in new and different ways |
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Strand: Life Science (Quarter 3)

<p>Learning Standard: 8.LS.1 Diversity of species, a result of variation of traits, occurs through the process of evolution and extinction over many generations. The fossil records provide evidence that changes have occurred in number and types of species.</p> <p>8.LS.2 Every organism alive today comes from a long line of ancestors who reproduced successfully every generation.</p> <p>8.LS.3 The characteristics of an organism are a result of inherited traits received from parent(s).</p>	<p>How Taught? Teaching activities may include, but are not limited to:</p> <ul style="list-style-type: none">● Students closely read select passages from documents to analyze text structure, development, and consequent meanings● Teacher provides direct instruction, give feedback, and model critical thinking● Small group and class discussions● Cooperative learning groups● Students to define, use, and connect to content area and based vocabulary● Students analyze video content related to standards that provide a broader global perspective of content.● Design and conduct lab-based investigations that connect content to real-life experiences.● Provide opportunities for out of building excursions (field trips) to provide additional real world application of standards.● Using technology and mathematics to improve investigations and communications.● Utilize data to impact instruction
<p>Materials: board adopted worktext Gizmo Kahoot Gimkit Quizizz Virtual Lab Stations Hands-on Labs Videos PTC Paper</p>	<p>How Assessed?</p> <ul style="list-style-type: none">● Pre-Assessments (pre-tests, observation, questioning, diagnostics)● Formative Assessments (entry/exit slips, mini analysis assignments, group work, discussions, homework/classwork, self and peer evaluations, checklists, guided notes, observations, quizzes, conferences, rubrics, lesson review questions, lab reports)● Summative Assessments (formal essays, using rubrics; tests/exams, project, evaluation, demonstration, lab practicals) <p>How Re-Taught? Re-teaching activities may include, but are not limited to:</p> <ul style="list-style-type: none">● descriptive feedback on original task/assessment● student examples of expectations● modeling

- student self assessments
- manipulatives
- presenting the information again in a different way
- review sessions
- graphic organizers
- small-group instruction
- practice activities
- computer tutorials / programs
- peer tutoring
- breaking down concept into smaller components
- games and hands-on activities
- cooperative learning
- Universal Design for Learning principles offering students opportunities to experience and engage material in new and different ways

Strand:

Learning Standard:	How Taught? Teaching activities may include, but are not limited to:
Materials:	How Assessed? Assessments may include, but are not limited to:
	How Re-Taught? Re-teaching activities may include, but are not limited to: <ul style="list-style-type: none">•

Strand:

Learning Standard:	How Taught?
Materials:	How Assessed? Assessments may include, but are not limited to:
	How Re-Taught? Re-teaching activities may include, but are not limited to: