UNIT: Weed Facts

Weed Facts
What is a Weed? Playground Investigation
Grades K-2

Life Science/Organisms: understand the characteristics, structures and functions of organisms
SC.03.LS.01

History & Nature of Science: understand science as a human endeavor

Science in Personal & Social Perspectives: understand science provides a basis for understanding and acting on personal and social issues

Social Studies/Geography: compare and analyze physical and human characteristics of places and regions
SS.03.GE.04

Social Studies/Geography: understand how people and the environment are interrelated
SS.03.GE.05

Language Arts/Kindergarten/Vocabulary: increase word knowledge, determine meaning of words, verify new words and use new words
EL.00.RE.21  EL.00.RE.22  EL.00.RE.23  EL.00.RE.24

Language Arts/Kindergarten/Speaking and Listening: communicate supported ideas across subject areas; listen critically and respond appropriately
EL.00.SL.04  EL.00.SL.05  EL.00.SL.06

Language Arts/Grade 1/Speaking and Listening: communicate supported ideas across subject areas; listen critically and respond appropriately
EL.01.SL.02  EL.01.SL.04  EL.01.SL.05  EL.01.SL.06

Language Arts/Grade 2/Speaking and Listening: communicate supported ideas across subject areas; listen critically and respond appropriately
EL.02.SL.02  EL.02.SL.04  EL.02.SL.05  EL.02.SL.06

Independent Practice

Life/Science/Diversity-Interdependence: understand the relationships among living things and between living things and their environments
SC.03.LS.04

Weed Facts
A Weedy Scavenger Hunt
Grades K-2

Language Arts/Kindergarten/Vocabulary: increase word knowledge, determine meaning of words, verify new words and use new words
EL.00.RE.21  EL.00.RE.22  EL.00.RE.23

Language Arts/Kindergarten/Speaking and Listening: communicate supported ideas across subject areas; listen critically and respond appropriately
EL.00.SL.04  EL.00.SL.05  EL.00.SL.06

Language Arts/Grade 1/Speaking and Listening: communicate supported ideas across subject areas; listen critically and respond appropriately
EL.01.SL.02  EL.01.SL.04  EL.01.SL.05

Language Arts/Grade 2/Speaking and Listening: communicate supported ideas across subject areas; listen critically and respond appropriately
EL.02.SL.02  EL.02.SL.04  EL.02.SL.05  EL.02.SL.06

History & Nature of Science: understand science as a human endeavor

Social Studies/Geography: compare and analyze physical and human characteristics of places and regions
SS.03.GE.04

The following list for elementary and middle school lessons indicate the correlation of activities to the K-8 Oregon Academic Content Standards (2009) in language arts, math, science, social studies and technology. The correlation of these lesson activities was completed by, and then reviewed by, classroom teachers. Standards are revised and updated periodically. For current information, please check the website at: http://www.cof.orst.edu/onrep/.
Language Arts/Kindergarten/Vocabulary: increase word knowledge, determine meaning of words, verify new words and use new words
EL.00.RE.23  EL.00.RE.24

Independent Practice
Language Arts/Kindergarten/Writing Applications: write narrative, expository or persuasive texts using a variety of forms
EL.00.WR.13

Language Arts/Grade 1/Writing Applications: write narrative, expository or persuasive texts using a variety of forms
EL.01.WR.18

Weed Facts
An Ecosystem is Like a Bowl of Milk Grades 3–5

Unifying Concepts and Processes:
• understand and apply concepts and processes common to all sciences
• understand that any collection of things that have an influence on each other can be thought of as a system
• understand that a model is a tentative scheme or structure with explanatory power
• understand that both patterns of change and stability are important in the natural world

History & Nature of Science: understand science as a human endeavor

Social Studies/Geography: understand how people and environment are interrelated SS.03.GE.05  SS.05.GE.07  SS.05.GE.07.01 SS.05.GE.07.02

Life/Science/Diversity-Interdependence: understand the relationships among living things and between living things and their environments SC.05.LS.05.01

Language Arts/Grade 3/Expository Writing
EL.03.WR.25

Language Arts/Grade 3/Vocabulary: increase word development through systematic vocabulary development
EL.03.RE.12  EL.03.RE.18  EL.03.RE.13

Language Arts/Grade 4/Vocabulary: increase word development through systematic vocabulary development
EL.04.RE.09  EL.04.RE.15  EL.04.RE.10

Language Arts/Grade 5/Vocabulary: increase word development through systematic vocabulary development
EL.05.RE.09  EL.05.RE.14

Independent Practice & Related Activities
• Bullet 3: Life/Science/Diversity-Interdependence: understand the relationships among living things & between living things and their environments SC.05.LS.05.03  SC.03.LS.02
• Bullet 2: Life/Science/Diversity-Interdependence: understand the relationships among living things and between living things and their environments SC.05.LS.05.05  SC.05.LS.05.01
• Bullet 4: Language Arts/Writing: investigate topics of interest and importance across subject areas EL.04.WR.28
• Bullet 4: Language Arts/Research Writing Reports: investigate topics of interest and importance across subject areas EL.05.WR.30

Weed Facts
Where in the World Do They Come From? Grades 3–5

Social Studies/Geography: analyze the causes of human migration SS.05.GE.05

Social Studies/Geography: understand how people and environment are interrelated SS.03.GE.05  SS.05.GE.07  SS.05.GE.07.01 SS.05.GE.07.02  SS.05.GE.08

History & Nature of Science: understand science as a human endeavor
Life/Science/Diversity-Interdependence: understand the relationships among living things and between living things and their environments
SC.03.LS.04 SC.03.LS.05 SC.05.LS.06 SC.05.LS.06.01 SC.05.LS.06.02

Language Arts/Grade 3/Vocabulary: increase word development through systematic vocabulary development
EL.03.RE.12 EL.03.RE.13 EL.03.RE.18

Language Arts/Grade 4/Vocabulary: increase word development through systematic vocabulary development
EL.04.RE.09 EL.04.RE.10 EL.04.RE.15

Language Arts/Grade 5/Vocabulary: increase word development through systematic vocabulary development
EL.05.RE.09 EL.05.RE.14

Independent Practice & Related Activities:
• Mathematics/Statistics and Probability/Data Analysis and Predictions: develop and evaluate inferences and predictions that are based on data
MA.03.SP.04
• Mathematics/Statistics and Probability/Collect and Display Data: formulate questions that can be addressed with data and collect, organize and display relevant data to answer them
MA.04.SP.05 MA.05.SP.05

Weed Facts
The Great Race for Survival
Grades 3-5

This lesson involves a race activity. The race is not a typical physical education activity, so standards do not apply to the race. Standards apply to the manner in which a teacher concludes the race or conducts independent practice.

Discussion after conclusion of the race could support the following standards:
• Language Arts/Speaking: communicate supported ideas across the subject areas
EL.03.SL.04 EL.04.SL.02 EL.05.SL.02 EL.05.SL.04
• Language Arts/Listening: listen critically and respond appropriately
EL.03.SL.07 EL.03.SL.08 EL.03.SL.09

EL.04.SL.07 EL.04.SL.08 EL.05.SL.07 EL.05.SL.09

Independent Practice & Related Activities, Bullet 2:
Life Science CCG: understand the characteristics, structure and function of organisms

Life Science/Diversity-Interdependence: understand the relationships among living things and between living things and their environments
SC.05.LS.05 SC.05.LS.06 SC.05.LS.06.01 SC.05.LS.06.02

Weed Facts
When is a Rose Not a Rose?
Grade 6

Science
6.2L.2

Social Science
Geography SS.08.GE.07 SS.08.GE.07.01

Language Arts
Reading EL.06.RE.03
EL.06.RE.06 EL.06.RE.15 EL.06.RE.16
EL.06.RE.19 EL.06.RE.20

Writing
EL.06.WR.01 EL.06.WR.03 EL.06.WR.05
EL.06.WR.08 EL.06.WR.09 EL.06.WR.21
EL.06.WR.22 EL.06.WR.25 EL.06.WR.28
EL.06.WR.29 EL.06.WR.30 EL.06.WR.31

Speaking and Listening
EL.06.SL.02 EL.06.SL.03 EL.06.SL.04
EL.06.SL.06 EL.06.SL.07 EL.06.SL.08

Grade 7
Science
7.2 Interaction and Change 7.2E.3

Social Science
Geography SS.08.GE.07 SS.08.GE.07.01

Language Arts
Reading
EL.07.RE.02 EL.07.RE.05 EL.07.RE.14
EL.07.RE.15 EL.07.RE.18 EL.07.RE.19

Writing
EL.07.WR.01 EL.07.WR.03 EL.07.WR.05
EL.07.WR.08 EL.07.WR.09 EL.07.WR.25
EL.07.WR.24 EL.07.WR.28 EL.07.WR.31
EL.07.WR.32 EL.07.WR.33

EL.07.WR.34
Science in Personal & Social Perspectives: describe the role of science and technology in local, national and global issues

Science & Technology: understand the interconnections among science, technology and society

Language Arts/Writing Applications: write technical documents EL.08.WR.29

Weed Facts
Invasive Species Research Discussion Grades 6-8

Teach this lesson after students have completed the lesson When is a Rose Not a Rose?. Students will use information they collected for When is a Rose Not a Rose? in this lesson.

History & Nature of Science: understand that scientific knowledge is subject to change based on new findings and results of scientific observation and experimentation

Science & Technology: understand the interconnections among science, technology and society

Weed Facts
Weed Invasion Grades 6-8

Social Studies/Geography: understand how people and the environment are interrelated SS.05.GE.07 SS.05.GE.07.01 SS.05.GE.07.02 SS.05.GE.08 SS.05.GE.08.012 SS.08.GE.07 SS.08.GE.08 SS.08.GE.08.01

Mathematics/Mathematical Problem Solving: select, apply and translate among mathematical representations MA.06.PS.01 MA.07.PS.01 MA.08.PS.01

Mathematics/Mathematical Problem Solving: apply and adapt a variety of appropriate strategies MA.06.PS.02 MA.07.PS.02 MA.08.PS.02

Mathematics/Mathematical Problem Solving: communicate mathematical thinking coherently and clearly MA.06.PS.04 MA.07.PS.04 MA.08.PS.04

Mathematics/Mathematical Problem Solving: accurately solve problems that arise MA.07.PS.05 MA.08.PS.05

Language Arts/Writing: Extend the mathematical
exercise to a written work sample to apply the scoring guide.

**Science Standards:** This lesson uses previously learned knowledge and experience. Teach this lesson in the sequence of lessons for the Weed Facts unit.

**Weed Facts**

**Make-Believe Plants**

**Grades 4-12**

**The Arts/Create, Present and Perform:** apply ideas, techniques and processes in the arts

AR.05.CP.01 AR.08.CP.01

**Science/Organisms:** understand the characteristics, structure and functions of organisms

SC.05.LS.01 SC.05.LS.01.01

**Language Arts/Speaking and Listening:** communicate supported ideas across subject areas

EL.04.SL.01 EL.04.SL.07 EL.05.SL.01
EL.05.SL.02 EL.05.SL.03 EL.05.SL.04
EL.05.SL.07 EL.06.SL.01 EL.06.SL.02

**UNIT:**

**Weed Identification**

**Weed Identification**

**Plant Parts and Their Functions**

**Grades K-2**

**Science/Life Science/Organisms:** understand the characteristics, structure and functions of organisms

SC.03.LS.01

**Independent Practice and Related Activities, Last Bullet**

**Science/Life Science/Organisms:** understand the characteristics, structure and functions of organisms

SC.03.LS.01

**Weed Identification**

**Weed Clue**

**Grades K-2**

**Science/Life Science/Organisms:** understand the characteristics, structure and functions of organisms

SC.03.LS.01

**Language Arts/Grade 2/Writing:** write narrative, expository and persuasive text using a variety of written forms

EL.02.WR.22

**Weed Identification**

**Weed Identification Relay**

**Grades 3-5**

Use this lesson to reinforce students’ weed identification skills or as a post-assessment after completing other lessons in the Weed Identification unit.

To achieve the standard listed for this lesson, complete the last bullet in the list under Variations for the Relay.

**Science/Life Science/Diversity-Interdependence:** understand the relationships among living things and between living things and their environments

SC.05.LS.05

**Weed Identification**

**Introduction to Dichotomous Keys**

**Grades 3-5**

**Science/Life Science/Organisms:** understand the characteristics, structure and functions of organisms

SC.03.LS.01 SC.05.LS.01 SC.05.LS.01.01

**Weed Identification**

**Picture a Weed**

**Grades 6-8**

**Science/Life Science/Organisms:** understand the characteristics, structure and functions of organisms

SC.05.LS.01 SC.05.LS.01.01 SC.05.LS.03

**Weed Identification**

**Seed Bank**

**Grades 6-8**

**LA/Grade 6/Grade 7/Grade 8/Writing:** write narrative, expository and persuasive texts using a variety of written forms, including journals and technical writing, to express ideas appropriate to audience and purpose across the subject areas

**Science/Life Science/Organisms:** understand the characteristics, structure and functions of organisms

SC.05.LS.01 SC.05.LS.01.01 SC.05.LS.03

**Science/Life Science/Heredity:** understand the transmission of traits in living things

SC.05.LS.04
UNIT: Weed Prevention

Weed Prevention
Dilemma Decisions
Grades 3-5
Science in Social and Personal Perspectives
• describe how daily choices of individuals, taken together, affect global resource cycles, ecosystems and natural resource supplies.
• explain risks and benefits in personal and community health from a science perspective.

Social Sciences/Geography: understand how people and the environment are interrelated
SS.03.GE.05 SS.05.GE.07 SS.05.GE.07.01 SS.05.GE.07.02

Weed Prevention
Awareness to Action
Grades 6-8
Social Science Analysis: define and clarify an issue so that its dimensions are well understood
SS.08.SA.01

Social Science Analysis: acquire and organize materials from primary and secondary sources
SS.08.SA.02

Social Science Analysis: explain various perspectives on an event or issue and the reasoning behind them
SS.08.SA.03

Social Science Analysis: identify and analyze an issue
SS.08.SA.04

Social Science Analysis: select a course of action to resolve an issue
SS.08.SA.05

Science in Social and Personal Perspectives: describe how daily choices of individuals, taken together, affect global resource cycles, ecosystems and natural resource supplies

Science in Social and Personal Perspectives: explain risks and benefits in personal and community health from a science perspective

Independent Practice and Related Activities: These activities have a strong community service component, and they fit correlations for Social Science Analysis.

Weed Prevention
Seeds in Your Socks
Grades 6-8
Science/Organisms: understand the characteristics, structure and functions of organisms
SC.05.LS.01 SC.05.LS.01.01 SC.05.LS.03 SC.05.LS.03.01

Science/Heredity: understand the transmission of trains in living things
SC.05.LS.04

Science/Diversity-Interdependence: understand the relationships among living things and between living things and their environments
SC.05.LS.05 SC.05.LS.04

Language Arts/Writing: write narrative, expository and persuasive texts using a variety of written forms, including journals, across the subject areas EL.08.WR.29

Weed Prevention
Shopping Spree
Grades 6-9
Scientific Inquiry/Forming the Question: formulate and express scientific questions or hypotheses to be investigated
SC.08.SI.01

Scientific Inquiry/Collect and present data: conduct procedures to collect, organize and display scientific data
SC.08.SI.03

Scientific Inquiry/Analyze & Interpret Results: analyze scientific information to develop and present conclusions
SC.08.SI.04
**Independent Practice & Related Activities:**

- **Bullet 1:** Science/Organisms: understand the characteristics, structure and functions of organisms
  SC.05.LS.01 SC.05.LS.01.01
- **Bullet 2:** TG.02: select and use technology to enhance learning and problem solving and TG.03: access, organize and analyze information to make informed decisions, using one or more technologies.
- **Bullet 3:** Science in Personal & Social Perspectives: describe how daily choices of individuals, taken together, affect global resource cycles, ecosystems and natural resource supplies

**UNIT:**

**Weed Inventory**

**Weed Inventory**
**Invent an Inventory**
**Grades 3-5**

**Science and Technology:** understand the process of technological design to solve problems and meet needs.

**History and Nature of Science:** understand that scientific knowledge is subject to change based on new findings and results of scientific observation and experimentation

**Science/Life Science/Diversity-Interdependence:** understand the relationship among living things and between living things and their environments
SC.03.LS.04 SC.03.LS.05

**Social Science/Geography:** understand how people and the environment are interrelated
SS.03.GE.05 SS.05.GE.01 SS.05.GE.07

**Weed Inventory**
**The Right Inventory for the Job**
**Grades 6-8**

**Social Science Analysis:** define and clarify an issue so that its dimensions are well understood
SS.08.SA.01

**Social Science Analysis:** explain various perspectives on an event or issue and the reasoning behind them
SS.08.SA.03

**Social Science Analysis:** identify and analyze an issue
SS.08.SA.04

**Social Science Analysis:** select a course of action to resolve an issue
SS.08.SA.05

**Weed Inventory**
**Practicing Protocols**
**Grades 6-8 (advanced)**

**Social Science/Geography:** understand the spatial concepts of location, distance, direction, scale, movement and region
SS.05.GE.01 SS.05.GE.01.01

**Social Sciences/Geography:** use maps and other geographic tools and technologies to acquire, process and report information from a spatial perspective
SS.05.GE.02 SS.05.GE.02.02 SS.08.GE.02 SS.08.GE.02.01

**Science and Technology:** understand the interconnections among science, technology and society; understand the relationship that exists between science and technology; understand the process of technological design to solve problems and meet needs

**History and Nature of Science:** understand science as a human endeavor, the nature of scientific knowledge and the history of science as it relates to and clarifies scientific inquiries; understand that scientific knowledge is subject to change based on new findings and results of scientific observation and experimentation

**UNIT:**

**Weed Mapping**

**Weed Mapping**
**Drawing Sequence Maps**
**Grades K-2**

**Language Arts/Speaking and Listening/Speaking:** communicate supported ideas across the subject areas
EL.00.SL.06

**Social Science/Geography:** understand spatial concepts of location, distance, direction, scale, movement and region
SS.03.GE.01
Social Science/Geography: use maps and other geographical tools
SS.03.GE.02

Science/Life Science/Organisms: understand the characteristics, structure and functions of organisms
SC.03.LS.01

**Weed Mapping**

**Map Journeys**

**Grades 3-5**

Social Science/Geography: understand spatial concepts of location, distance, direction, scale, movement and region
SS.03.GE.01 SS.05.GE.01 SS.05.GE.01.01

Social Science/Geography: use maps and other geographical tools
SS.03.GE.02 SS.05.GE.02 SS.05.GE.02.02

History & Nature of Science: understand science as a human endeavor, the nature of scientific knowledge and the history of science as it relates to and clarifies scientific inquiries; understand that scientific knowledge is subject to change based on new findings & results of scientific observation and experimentation.

**Weed Mapping**

**Tracking Weeds in the Schoolyard**

**Grades 6-8**

When used in a life science class as the basic inquiry into the kinds of plants that grow on the school grounds, this lesson correlates to the standards for Science Inquiry.

Social Science/Geography: understand spatial concepts of location, distance, direction, scale, movement and region
SS.05.GE.01 SS.05.GE.01.01 SS.08.GE.01

Social Science/Geography: use maps and other geographical tools
SS.05.GE.02 SS.05.GE.02.01 SS.08.GE.02

**Independent Practice and Related Activities, Bullet 2:**

Science and Technology: understand the interconnections among science, technology and society; understand the process of technological design to solve problems and meet needs

**Weed Mapping**

**The Marks on This Map are Alien!**

**Grades 6–12**

SS/Geography: understand the spatial concepts of location, distance, direction, scale, movement and region
SS.08.GE.01 SS.08.GE.01.01

SS/Geography: use maps and other geographic tools and technologies to acquire, process and report information from a spatial perspective.
SS.08.GE.02 SS.08.GE.02.01

SS/Geography: locate major physical and human (cultural) features of the Earth
SS.08.GE.03.01

**UNIT:**

**Weed Control**

**Once Upon a Town**

**Grades K-2**

Kindergarten

Reading

EL.00.RE.20: demonstrate listening comprehension of more complex text through discussions
EL.00.RE.21: understand, learn, and use new vocabulary that is introduced and taught directly through orally read stories and informational text
EL.00.RE.27: correctly answer simple questions about a text read aloud
EL.00.RE.29: connect the information in text to life experiences

First grade

Reading

EL.01.RE.22: demonstrate listening comprehension of more complex text through discussions
EL.01.RE.26: develop vocabulary by listening to and discussing both familiar and conceptually challenging selections read aloud
EL.01.RE.35: describe new information gained from text in own words
EL.01.RE.36: answer simple written comprehension questions based on material read
EL.01.RE.37: make connections and discuss prior knowledge of topics in informational texts
EL.01.RE.38: discuss how, why, and what-if questions in sharing informational texts
Second grade

Reading
EL.02.RE.11: demonstrate listening comprehension of more complex text through discussions
EL.02.RE.16: develop vocabulary by listening to and discussing both familiar and conceptually challenging selections read aloud
EL.02.RE.27: read informational texts for answers to specific questions or for specific purposes
EL.02.RE.28: recall facts and details in the text to clarify and organize ideas
EL.02.RE.29: pose possible answers to how, why, and what-if questions
EL.02.RE.30: connect the information in text to life experiences, text, and world

Science
2.1L.1: compare and contrast characteristics and behaviors of plants and animals and the environment where they live.

Weed Control
Weeds vs. Bugs
Grades 3-5
Science/Life Science/Organisms: understand the characteristics, structure and functions of organisms
SC.03.LS.02

History and Nature of Science: understand science as a human endeavor, the nature of scientific knowledge and the history of science as it relates to and clarifies scientific inquiries; understand that scientific knowledge is subject to change based on new findings and results of scientific observation and experimentation

Social Studies/Geography: understand the geographic results of resource use and management programs and policies

Weed Control
And Just How DO You Kill a Weed?
Grades 6-8
Scientific Inquiry/Forming the Question
SC.08.SI.01

Scientific Inquiry/Designing the Investigation
SC.08.SI.02

Scientific Inquiry: Collecting and Presenting Data
SC.08.SI.03

Scientific Inquiry: Analyzing and Interpreting Results
SC.08.SI.04

Depending on the type of experiment, this lesson may correlate to life sciences benchmarks.

The lesson will correlate to general Language Arts Common Curriculum Goals for grades six to eight due to the nature of scientific observation and data recording; students will also prepare and present the results of their experiments.

- write narrative, expository and persuasive texts using a variety of written forms, including journals, essays, short stories, poems, research reports, research papers, business and technical writing, to express ideas appropriate to audience and purpose across the subject areas
- investigate topics of interest and importance across the subject areas, selecting appropriate media sources, using effective research processes and demonstrating ethical use of resources and materials
- communicate supported ideas across the subject areas using oral, visual and multimedia forms in ways appropriate to topic, context, audience and purpose; organize oral, visual and multimedia presentations in clear sequence making connections and transitions among ideas and elements; use language appropriate to topic, context, audience and purpose and demonstrate control of eye contact, speaking rate, volume, enunciation, inflection, gestures and other non-verbal techniques
- evaluate the significance and accuracy of information and ideas presented in oral, visual and multimedia communications across the subject areas

UNIT:
Community Involvement

Community Involvement
Wanted Poster
Grades K-2
Grades 6-8
Students meet Life Science Common Curriculum Goals while performing activities previous to this capstone activity.
Science and Technology: understand the interconnections among science, technology and society; understand the relationship that exists between science and society; understand the process of technological design to solve problems and meet needs.

Students meet General Language Arts Common Curriculum Goals due to the nature of the activity involved with this lesson.

Common Curriculum Goals:
• write narrative, expository and persuasive texts using a variety of written forms, including journals, essays, short stories, poems, research reports, research papers, business and technical writing, to express ideas appropriate to audience and purpose across the subject areas.
• investigate topics of interest and importance across the subject areas, selecting appropriate media sources, using effective research processes and demonstrating ethical use of resources and materials.
• communicate supported ideas across the subject areas using oral, visual and multimedia forms in ways appropriate to topic, context, audience and purpose, organize oral, visual and multimedia presentations in clear sequence making connections and transitions among ideas and elements; use language appropriate to topic, context, audience and purpose and demonstrate control of eye contact, speaking rate, volume, enunciation, inflection, gestures and other non-verbal techniques.
• evaluate the significance and accuracy of information and ideas presented in oral, visual and multimedia communications across the subject areas.

The Arts/Create, Present and Perform: create, present and perform works of art
AR.08.CP.01

Social Studies/Geography: understand how people and the environment are interrelated
SS.08.GE.07 SS.08.GE.07.02 SS.08.GE.08 SS.08.GE.08.01