



Project WET Curriculum & Activity Guide 2.0 Grade Level Expectations Correlations (Arranged alphabetically)

Preface

Several years ago, the Department of Natural Resources helped to fund a project for Missouri Teachers and Environmental Educators to match Project WET activities with the appropriate Show-Me Standards, which included both Content Standards and the 4 Process Standards (Goals 1-4). This work resulted in the Correlation Guide, which was a standard booklet passed along to each person taking a Project WET workshop with the former WET guide in Missouri. This correlation guide is extensive and matches content standards for all subject areas and the process standards with the WET activities in the previous WET guide.

In the meantime, two things happened at the state level with the Department of Elementary and Secondary Education (DESE) that changed the effectiveness of the Correlation Guide—1) the creation of the Grade-Level Expectations (GLEs) for grades K-8 and Course Level Expectations (CLEs) for grades 9-11 and 2) our understanding of the Content and Process Standards. The Content Standards were not changed, but were broken down into recommendations for each grade level or course offering at the high school level. With the state's recommendation that the high school grades give an End of Course exam, rather than the former MAP test, the CLEs have been separated into specifics for each basic course—for example, biology, chemistry, physics, earth & space science in science. As teachers' familiarity with the content and process standards grew, we now know that activities must match exactly with standards or GLEs/CLEs, if they are to be considered an effective teaching tool. Project WET is an excellent activity guide to assist educators and matches very well with the original content standards, GLEs, CLEs and process standards.

While it is true that Project WET activities are interdisciplinary, the GLEs/CLEs reflected in this document has direct ties to each activity (or notation will follow). For the activities that target elementary grades, GLEs and process standards will be given for science, with notes made if they also address other subject areas. For activities that target middle school, the GLEs for science and process standards will be given, with the understanding that these activities still are interdisciplinary in nature and other content GLEs will apply. At the high school level, each activity will be matched with the science CLEs, as well as the process standards.

In the fall of 2011, the newly revised Project WET Curriculum & Activity Guide or Project WET Generation 2.0 was ready, and the new activities in this guide have been matched to Missouri Science

GLEs and CLEs. In addition, the new WET guide will be matched to national Common Core standards for English Language Arts and Math, National Science Standards, the NOAA standards for Ocean Literacy, etc. This information will be available through the Project WET Web Portal, an accompanying piece to the new Project WET Activity Guide.

An example of the GLE annotation method is explained here: **SC 5 ES.1.B.6.a**

The SC represents *Science*, 5 is for *Strand 5*, ES is for *Earth Science*, 1 is for *Big Idea #1*, B is for the *Concept*, 6 is for *Grade 6* and a is for the specific item, or GLE under the concept. So, this annotation is a 6th grade item within the Earth Science strand. The specific GLE reads as follows:

Recognize the properties of water that make it an essential component of the Earth system (e.g., its ability to act as a solvent, its ability to remain a liquid at most Earth temperatures)

The GLEs and CLEs can be found by visiting the DESE website at www.dese.mo.gov under *Curriculum* and then *Science Grade Level or Course Level Expectations*.

The Strands for Science and their abbreviations are as follows:

- Strand 1—Matter and Energy (ME)
- Strand 2—Force and Motion (FM)
- Strand 3—Living Organisms (LO)
- Strand 4—Ecology (EC)
- Strand 5—Earth Systems (ES)
- Strand 6—Universe (UN)
- Strand 7—Inquiry (Scientific Process) (IN)
- Strand 8—Science and Technology (ST)

This annotation method is consistent with the DESE method of annotating, with the exception of one addition here. SC for Science and the Strand number were added for more clarification at the beginning of each set. For those who don't always work with the GLEs and CLEs this might be helpful and will also serve as a reminder that each of these are for Science only.

If you would like a copy of the original Correlations Standards booklet or GLEs/CLEs match for the original Project WET guide, please contact the Missouri Project WET Coordinator at Missouri State University.

Project WET Curriculum & Activity Guide Generation 2.0
Grade Level Expectations Correlations (Arranged alphabetically)

8-4-1, One for All (299)

SC 4 EC.1.D.4.a; EC.1.D.6.a

1.8, 1.10, 2.1, 3.7

This activity has a strong Social Studies and short Communication Arts component.

Adventures in Density (3)

SC 1 ME.1.D.6.a; ME.1.D.7.a; ME.2.A.7.a&b;
ME.1.D.8-11.a&b

1.5, 1.6, 2.1, 3.5

This activity also uses literature passages and asks students to relate density concepts to the writings.

A-maze-ing Water (231) Pre-K through 2 Option

SC 4 EC.1.D.6.a

SC 5 ES.2.F.K.a & b; ES.2.E.5.a; ES.2.E.7.a;
ES.3.A.5.b&c; ES.3.A.6.b

SC 7 IN.1.A.K-2.a & b; IN.1.B.K-2.a; IN.1.C.K-2.a

SC 8 ST.1.A.K-1.a; ST.1.C.6-8.a; ST.3.A.2-5.a

1.2, 3.1, 3.2, 4.1

Also, Communication Arts (if doing research) and possibly art, if doing Option 2

Aqua Bodies (45)

SC 3 LO.1.A.1.a&b; LO.1.A.3.a

Math is also used with percentages for upper elementary grades (fractions with younger).

Aqua Notes (51)

SC 3 LO.1.A.1.a&b; LO.1.A.3.a

2.5

This activity is heavily fine arts—singing and coloring.

Back to the Future (307)

SC 7 IN.1.D.6-8.a; IN.1.D.9-11.a

1.6, 1.8, 1.10, 2.3, 3.1, 3.2, 3.6, 3.7, 3.8, 4.1, 4.7

Blue Planet (125) Pre-K through 2 Option

SC 5 ES.2.E.5.a; ES.2.E.7.a

1.8, 2.3, 3.5

This activity includes math (probabilities).

Blue River (135)

SC 5 ES.3.A.7.b

1.5, 1.8

Color Me a Watershed (239)

SC 4 EC.1.D.Bio.a

SC 5 ES.2.A.Earth & Space.a

1.5, 1.8, 1.10, 2.1, 3.5

This activity also uses math skills

Common Water (249) Pre K-2 option

SC 5 ES.3.A.6.b; ES.2.E.7.a; ES.3.A.7.b

SC 8 ST.1.C.6-8.a

1.6, 1.9, 3.1, 3.2, 3.6, 3.8, 4.3

Discover the Waters of Our National Parks (493) Pre-K through 2 Option

SC 4 3-12 Link, depending upon what background info is shared (wolves in Yellowstone) or which story is read—Calusa Memories relates more to SC 4 standards.

1.2, 1.4, 1.9, 2.7, 4.2

This activity has a Social Studies component.

A Drop in the Bucket (257)

SC 4 EC.1.B.6.b

SC 5 ES.1.B.6.a; ES.3.A.6.a & b

SC 8 ST.1.C.6-8.a; ST.3.B.6-8.b

1.5, 3.1, 4.3, 4.7

Germ Busters (57)

This activity is a Health related activity

2.1, 3.1

Get the Ground Water Picture (143)

SC 5 ES.1.A.6.a; ES.2.E.7.a; ES.1.B.Earth & Space.a; ES.3.A.Earth & Space.d

SC 8 ST.3.C.9-11.c

1.5, 1.6, 1.10, 3.5, 4.7

A Grave Mistake (315)

SC 4 EC.1.D.6.a

SC 5 ES.2.E.7.a (review); ES.1.B.Earth & Space.a; ES.3.A.Earth & Space.b;

SC 7 IN.1.A.6-8.a & e; IN.1.C.6-8.a & b; IN.1.A.9-11.a; IN.1.C.9-11.a & b

SC 8 ST.1.C.6-8.a

1.1, 1.5, 1.6, 1.9, 3.1, 3.5, 3.7, 4.1, 4.6

H₂Olympics (13)

SC 1 ME.1.A.4.c; ME.1.D.3.a; ME.1.A.6.b; ME.1.C.6.a; ME.1.C.8.a

SC 7 IN.1.A.3.a; IN.1.A.4-5.a; IN.1.B.3-5.a; IN.1.C.3-5.a & b; IN.1.D.3-4.a & b; IN.1.D.5.a & b; IN.1.E.3-5.a; IN.1.A.6-8.a; IN.1.B.6-8.a; IN.1.C.6-8.a; IN.1.D.6-8.a & b

1.1, 1.6, 3.3, 3.5

Hangin' Together (19)

SC 1 ME.1.B.6.a & c; ME.1.C.6.a; ME.1.C.8.a; ME.1.D.6.a; ME.2.A.7.h

SC 5 ES.1.B.6.a

SC 7 IN.1.A.6-8.c; IN.1.A.7-8.f; IN.1.B.6-8.a; IN.1.C.6-8.a & b; IN.1.D.6-8.a

1.3, 1.5, 1.6, 2.1, 2.3, 3.3, 3.5, 4.1

Healthy Habits (63)

SC 3 LO.2.G.8.b

1.10, 3.1, 4.7

High Water History (321)

SC 4 EC.1.D.6.b

SC 8 ST.3.B.6-8.b

1.10, 2.3, 3.1

Also, Math and Social Studies/Economics

Hitting the Mark (327)

SC 7 IN.1.D.6-8.a; IN.1.D.9-11.a

1.5, 2.1, 2.3

Humpty Dumpty (335)

SC 4 EC.1.D.6.a-c
SC 8 ST.3.B.8.a & b

1.5, 1.6, 2.3, 3.1, 3.2, 3.6, 3.8, 4.1, 4.6
Idea Pools (xxiii)

1.6, 1.8, 2.2, 4.1

Activity set up for discussion and brainstorming of any topic and any subject. This can be used to determine what students already know about a topic or to get new ideas.

The Incredible Journey (155)

SC 5 ES.1.C.3.a-c; ES.1.C.5.a; ES.2.E.3.a;
ES.2.E.5.a; ES.2.E.7.a

For grades 6-8, be sure to also talk about the *energy* needed for the water cycle to occur (ES.2.E.7.c)

1.6, 2.1

Invaders! (263)

SC 4 EC.1.A.4.b; EC.1.B.6.a-c; EC.1.D.6.a
EC.1.D.Bio.a & b

1.2, 1.4, 1.8, 3.1, 3.2

A line graph is made in Part II.

Is There Water on Zork? (27)

SC 7 IN.1.A.6-8.b-d; IN.1.B.6-8.a-b; IN.1.C.6-8.a; IN.1.E.6-8.a

1.3, 1.5, 1.8, 3.1, 3.3, 3.5

This activity is good for an intro to Strand 7—Scientific Inquiry

Just Passing Through (163)

SC 4 EC.1.D.4.a; EC.1.D.6.a
SC 5 ES.2.A.4.d; ES.2.E.5.a; ES.3.A.4.a & b;
ES.2.E.7.a; ES.3.A.6.c

1.5, 3.1

Can review ES.1.A.4.c—components of soil and its properties before beginning this activity to address another GLE.

The Life Box (69)

SC 3 LO.1.A.1.a & b; LO.1.A.3.a
SC 4 EC.2.A.3.a
SC 5 ES.1.A.2.a; ES.1.A.4.a

1.5

The Long Haul (273)

SC 8 ST.3.A.K-2.a & b; ST. 3.A.3-5.a & b

1.9, 1.10, 3.2, 4.6

Macroinvertebrate Mayhem (343)

SC 3 LO.1.E.5.c
SC 4 EC.1.B.6.b; EC.1.D.6.a
SC 7 IN.1.E.3-5.a; IN.1.E.6-8.a

1.2, 1.5, 1.6, 2.3, 4.1

The term “somewhat sensitive” can be substituted for “facultative” in this activity. Also, “sensitive” can be substituted for “intolerant” and “somewhat sensitive” and “sensitive” are terms used by the Missouri Stream Team Program—they are also more descriptive for students.

Make-a-Mural (515)

1.2, 1.10, 2.1, 2.5

This is an art activity for grades 3-12, based upon local watersheds. It does provide an extension of new vocabulary related to the water cycle for Grades 5 and 7, and Earth Science.

Molecules in Motion (33)

SC 1 ME.1.C.5.a; ME.1.D.3.a; ME.1.D.5.b

2.1

Money Down the Drain (351)

SC 7 IN.1.B.3-5.a-e; IN.1.E.3-5.a; IN.1.B.6-8.a-f;
IN.1.E.6-8.a

SC 8 ST.3.A.3-5.b

1.5, 1.8, 1.10, 3.1, 3.8, 4.1

My Water Address, Take Action! (433)

SC 5 ES.3.A.3-12

1.5, 2.1, 3.2, 3.3, 3.8

My Water Footprint (441)

Related to **SC 5**, human uses of water and collecting data over time (SC 5 for both grades 5 and 7 ask students to collect weather data for a week)

SC 7 IN.1.C.3-5.C.a; IN.1.C.6-8.a; IN.1.E.3-5.a;
IN.1.E.6-8.a

1.5, 1.8, 2.3, 4.1

Nature Rules (277)

SC 4 EC.1.D.6.b (if students discuss other organisms in addition to people); EC.1.D.Bio.a (see note for EC.1.D.6.b)

This activity also addresses several Comm Arts GLEs

1.4, 1.5, 2.1, 2.2, 2.3, 2.6, 2.7

Ocean Habitats (73)

SC 3 LO.1.A.6.a

SC 4 EC.1.A.4.b; EC.3.C.4.a-b; EC.1.B.6.b;
EC.3.C.6.a

1.2, 3.5

On Track with Hydration (95)

SC 3 LO.1.A.6.a; LO.2.C.8.e; LO.2.F.8.a;
LO.2.F.Bio.c

1.6, 1.10

Pass the Jug (447)

SC 5 ES.3.A.6.a-c; ES.3.A.7.b

3.1, 3.2, 3.3, 3.6, 3.7, 4.1, 4.3

This activity illustrates the idea of water rights—whose water is it?

Poison Pump (107)

SC 3 LO.2.G.8.a,b & d

SC 7 IN.1.A.6-8.a, e & f; IN.1.C.6-8.a & b

1.5, 2.1, 2.2, 3.5

The Price is Right (357)

SC 8 ST.3.B.9-11.a

3.1, 3.7, 3.8, 4.1, 4.7

This activity has a strong link to Social Studies/Economics

The Pucker Effect (363)

SC 4 EC.1.D.6.a

SC 5 ES.3.A.6.b; ES.1.B.Chem.a; ES.3.A.Earth & Space.b

SC 7 IN.1.C.6-8.a-c; IN.1.C.9-11.a-c

1.3, 1.5, 3.5, 3.8

Related to **SC 5** for grades 5 and 7, but not directly mentioned as written.

Raining Cats and Dogs (521)

This activity has a strong link to Communication Arts—figurative and literal translations.

2.4

The Rainstick (529)

This activity has a link to Fine Arts and Social Studies/Cultures.

2.5

Rainy-Day Hike (169)

SC 5 ES.2.A.4.c; ES.3.A.4.a-b; ES.2.E.5.a; ES.3.A.5.b; ES.3.A.6.b & c; ES.2.E.7.a

SC 7 IN.1.B.3-5.a; IN.1.C.3-5.a & b; IN.1.D.3-5.b; IN.1.B.6-8.a; IN.1.C.6-8.a-c; IN.1.D.6-8.b

1.2, 1.3, 2.1, 3.2, 3.5

Reaching Your Limits (371)

SC 4 EC.1.D.6.a (Indirect)

SC 5 ES.3.A.5.a & b (indirect)

This activity demonstrates the idea of parts per million (ppm), etc., which could be helpful for HS Chemistry also.

River Talk (175)

SC 5 ES.2.E.7.a; ES.1.B.Earth & Space.a

1.6, 3.5, 4.1

This activity is heavily Communication Arts too, as participants use analogies to learn about watersheds.

Seeing Watersheds (187)

1.5

Snapshot in Time (A) (377)

SC 1 ME.1.F.8.a

SC 5 ES.2.E.7.a

1.6, 3.5

Snow and Tell (387)

SC 5 ES.2.E.3.a; ES.2.E.5.a & b; ES.2.F.5.a; ES.3.A.5.a; ES.2.E.7.a & b

SC 7 IN.1.B.3-11.a, c, e; IN.1.C.3-11.a & b

SC 8 ST.1.B.3-5.a

1.3, 1.6, 1.10

The high school link to this activity could be the discussion of the role of NRCS and the SNOTEL model.

Springing into Action (203)

SC 5 ES.1.B.5.a; ES.2.E.5.a; ES.1.A.6.a; ES.2.E.7.a; ES.3.A.7.b

1.3, 1.10

Storm Water (395)

SC 5 ES.2.E.5.a; ES.3.A.5.b; ES.2.E.7.a; ES.3.A.6.b

1.6, 1.8, 3.1, 3.2

Sum of the Parts (283)

SC 4 EC.1.D.4.a; EC.1.D.6.a

2.1, 2.2, 2.3, 3.1, 3.2, 3.3, 3.6, 3.7, 3.8, 4.1, 4.3, 4.7

Super Bowl Surge (405)

Part I

SC 4 EC.1.D.4.a; EC.1.D.6.a

SC 8 ST.1.C.3-5.a; ST.1.C.6-8.a

Part II

SC 4 EC.1.C.Bio.a

SC 8 ST.3.C.Bio, Earth & Space, Chem.c

Part I: 2.3, 3.1, 3.6

Part II: 1.2, 1.4, 1.5, 1.8, 2.1, 2.2, 2.3, 3.1, 3.2, 3.3, 3.6, 3.7, 3.8, 4.1, 4.3, 4.7

Super Sleuths (113)

SC 3 LO.2.G.8.b

SC 8 ST.3.B.6-8.a; ST.3.B.Bio & Chem.a & b

1.2, 1.6, 1.8, 2.1, 3.1

There is No Away (453)

SC 4 EC.1.D.4.a; EC.1.D.6.a

SC 5 ES.3.A.4.b; ES.3.A.6.b; ES.3.A.Earth & Space.b

SC 7 IN.1.A.K-3.a; IN.1.B.K-5.d; IN.1.B.6-8.e & f; IN.1.B.9-11.d

1.2, 1.6, 3.1, 3.2, 3.6, 4.3

This activity also uses math.

The Thunderstorm (209) Pre-K through 2 Option

SC 5 ES.2.F.K.a; ES.2.F.1.a & d; ES.2.E.3.a; ES.2.E.5.b

1.6, 1.8, 2.1, 2.2, 4.6

Urban Waters (413)

SC 1 ME.1.B.4.d; ME.1.B.6.b

SC 5 ES.2.E.7.a; ES.3.A.Earth & Space.b

SC 8 ST.1.C.6-8.a

1.8, 2.6

Virtual Water (289)

SC 4 EC.1.B.6.a

1.4, 1.10, 2.3, 4.3

This activity has a Social Studies component too.

Water Audit (469)

SC 5 ES.3.A.5.b; ES.3.A.Earth & Space.b

SC 7 IN.1.A.K-3.a; IN.1.B.K-5.d; IN.1.B.6-8.e & f; IN.1.B.9-11.d

1.2, 1.6, 2.1, 2.3, 3.1, 3.2, 3.6, 3.8, 4.3, 4.5

This activity also uses math.

Water Crossings (487)

SC 1 ME.1.A.4.c

SC 7 IN.1.B.3-5.a; IN.1.C.3-5.a; IN.1.B.6-8.a; IN.1.C.6-8.a & b; IN.1.C.9-11.a & c;

SC 2 could be used, but would have to be intentionally addressed by the teacher.

2.1, 3.1, 3.3, 3.7

Water Inspirations (535)

SC 1 ME.1.D.3.a & b

SC 5 ES.2.F.K.a; ES.1.C.3.a & b; ES.2.E.3.a; ES.2.E.7.b

1.5, 2.1, 2.4, 2.5

This activity is heavily Comm Arts and Fine arts—producing and evaluating poetry and analyzing artwork.

Water Quality? Ask the Bugs! (421)

SC 3 LO.1.E.6.a & b

SC 4 EC.1.B.6.b; EC.1.D.6.a; EC.1.D.Bio.a

1.2, 1.6, 1.10, 3.5

Wetland Soils in Living Color (217)

SC 1 ME.1.F.8.a

SC 5 ES.1.A.6.a

SC 7 IN.1.B.6-8.a; IN.1.C.6-8.a & b

1.3, 1.6, 1.8, 2.3, 3.5, 4.1

What's the Solution? (37)

SC 1 ME.1.B.4.a; ME.1.B.6.a; ME.1.B.Chem.c;
ME.1.D.Chem.b

SC 7 IN.1.C.3-5.a; IN.1.D.3-5.a & b; IN.1.C.6-
8.a; IN.1.D.6-8.a & b; IN.1.C.9-11.a

1.2, 1.6, 1.7, 2.1, 3.1, 3.5, 3.6, 4.1, 4.6

Your Hydrologic Bank Account (223)

1.5, 1.6, 1.8, 1.10, 3.1, 3.5

This activity involves balancing checkbook math and could be used as an introduction to a water management problem.