Rivers, Lakes, Water Quality Unit

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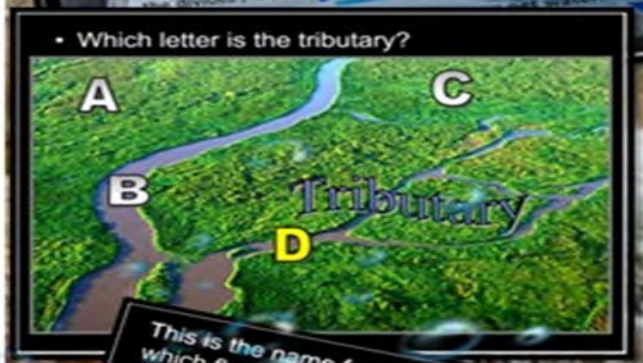
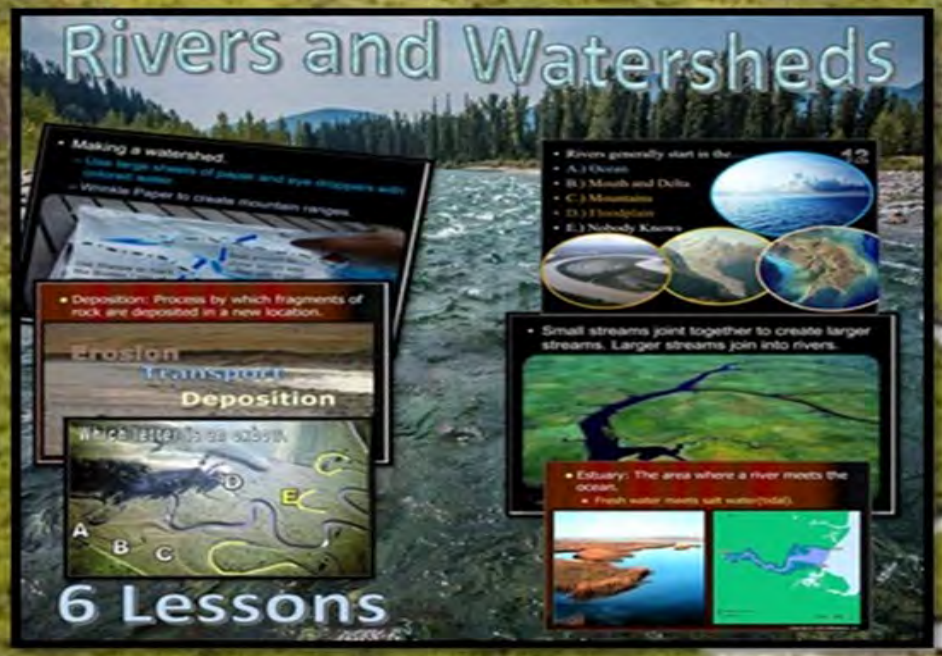
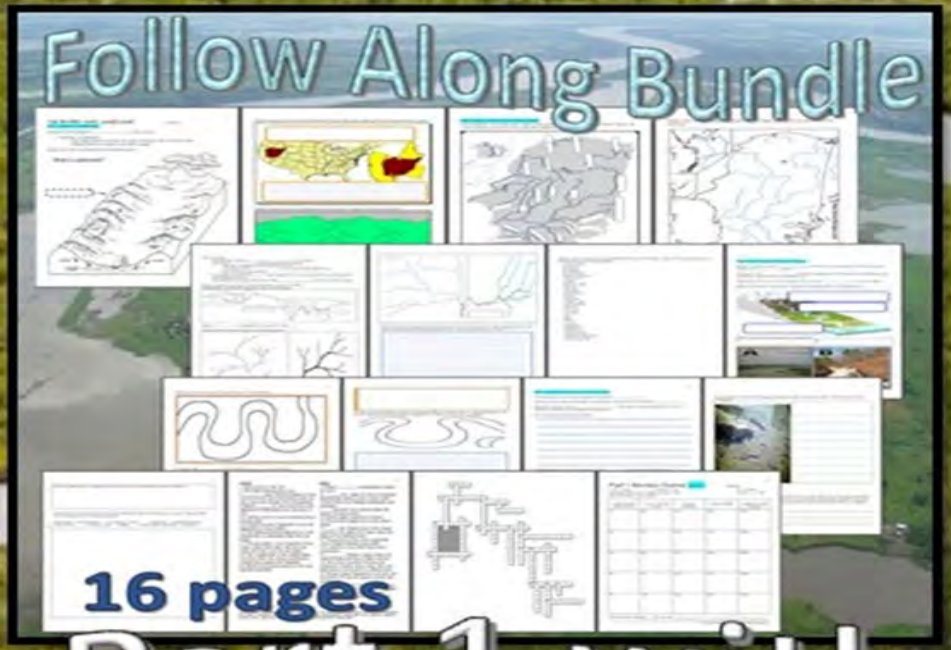
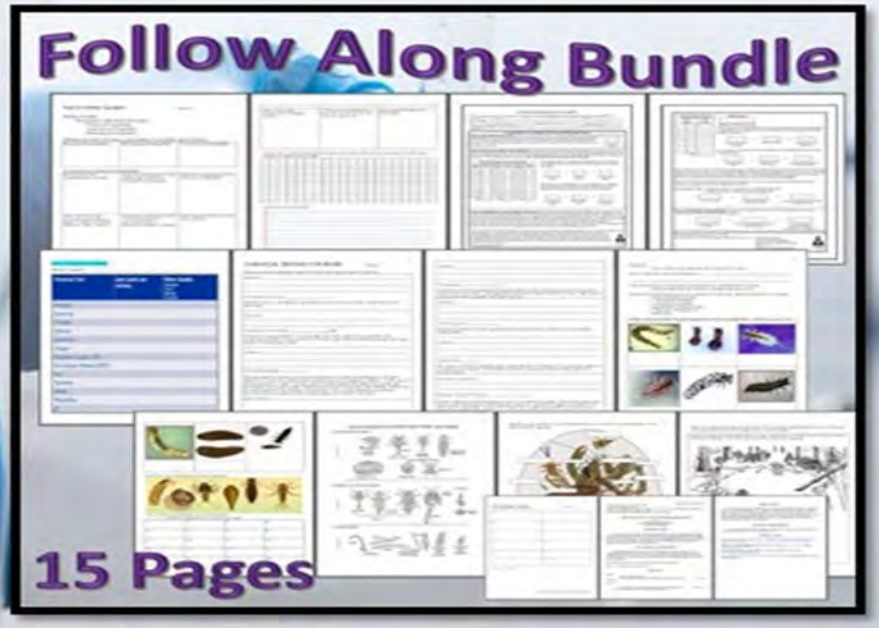


20 + Lessons

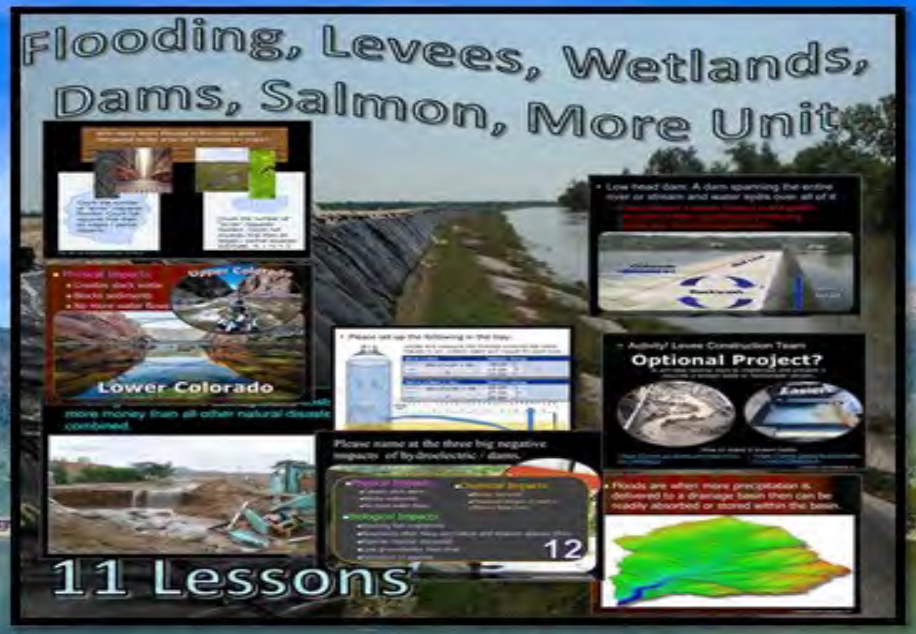


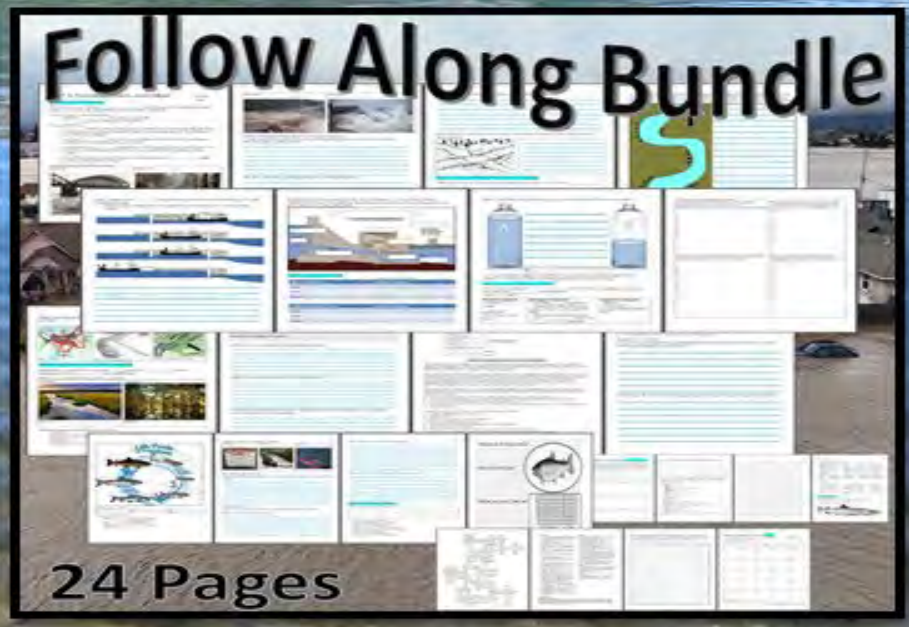


Part 1 with 6 Lessons



Part 2 Stream Study





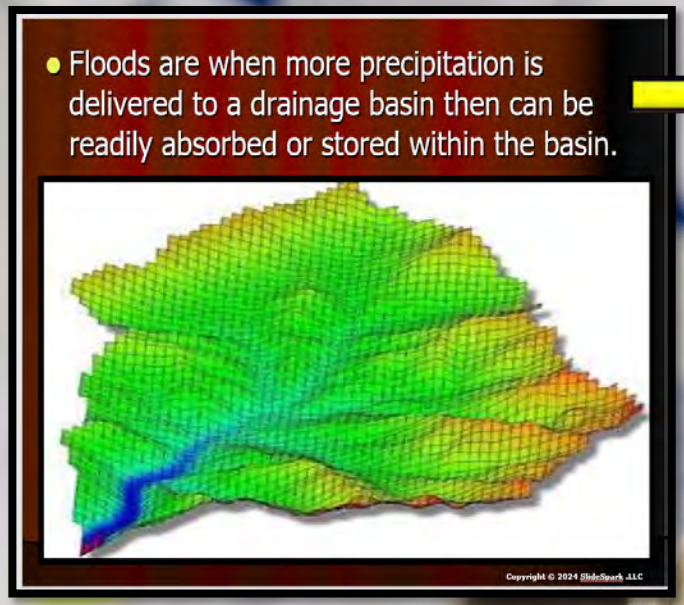
Part 3 with 11 Lessons

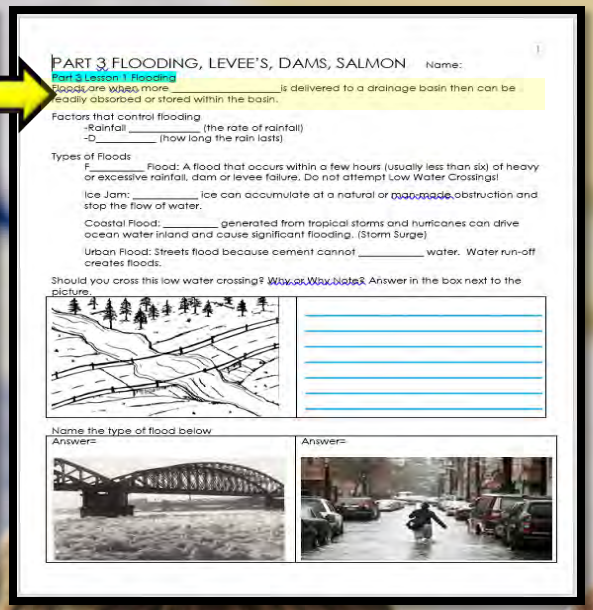
SlideSpark Science

MIDDLE-LEVEL EDUCATIONAL RESOURCES

Interactive slideshows provide the roadmap for an amazing learning experience for students in grades 5-9. A Detailed set of work bundles chronologically follow the digital learning, providing a clear and intuitive roadmap to understanding. As the teacher or student advances through a slideshow, exciting hands-on activities, fantastic visuals, fill-in notes, review opportunities, video links, assessments, and much more are strategically placed throughout. Interactive learning unfolds step by step and supported by the work bundle to reach all types of learners. Everything you need to run to an amazing learning experience is provided in this one-of-a-kind science curriculum.

Each unit in the curriculum is designed to help teachers deliver the best possible learning experience for their students. Our interactive science slideshows are filled with questions and answers, important fill-in notes, hands-on activities, projects, games, built-in quizzes, and end of the unit assessment pieces. Students follow along with a work bundle that documents the entire learning experience for a fantastic review and assessment piece.





PART 3 FLOODING, LEVEE'S, DAMS, SALMON Name:

Part 3 Lesson 1 Flooding

Floods are when more _____ is delivered to a drainage basin then can be readily absorbed or stored within the basin.

Factors that control flooding

-Rainfall _____ (the rate of rainfall)

-D_____ (how long the rain lasts)

Types of Floods

F_____ Flood: A flood that occurs within a few hours (usually less than six) of heavy or excessive rainfall, dam or levee failure. Do not attempt Low Water Crossings!

Ice Jam: _____ ice can accumulate at a natural or man-made obstruction and stop the flow of water.

Coastal Flood: _____ generated from tropical storms and hurricanes can drive ocean water inland and cause significant flooding. (Storm Surge)

Urban Flood: Streets flood because cement cannot _____ water. Water run-off creates floods.

Should you cross this low water crossing? Why or Why Not? Answer in the box next to the picture.

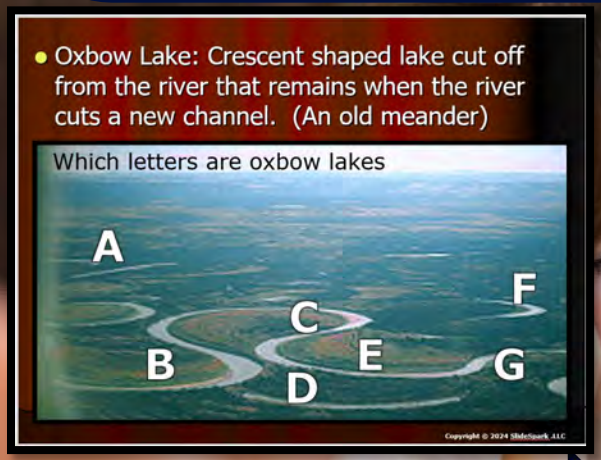
Name the type of flood below

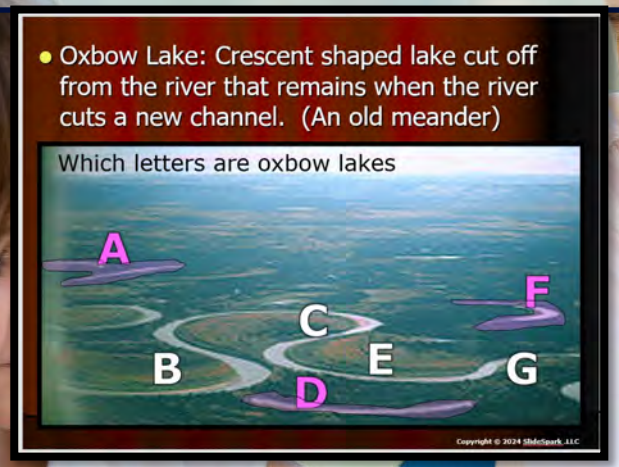
Answer=

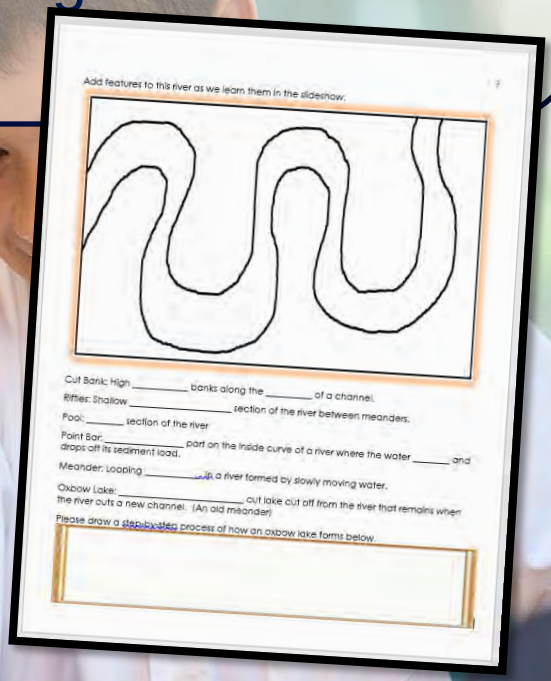
Answer=

Red Slide Notes: Help students record important information in a fun and easy-to-understand way. Designed red-colored slides contain a few pieces of crucial information that students must record into their work bundle to complete the notes. Students will use these important notes throughout the work bundle.

The set-up of the slideshows are designed to make learning fun and interactive for students. With a mix of questions and answers, teachers can use these slides to get their students thinking and actively participating in their education. Plus, the answers are always revealed on the next slide, providing students with immediate feedback and helping teachers assess their understanding.







Next Slide

Slideshow supports Work Bundle

Lesson Planning

Daily lessons space exciting hands-on activities, red slide notes, video and academic links, projects, simulations, readings, built-in quizzes, and review opportunities throughout the slideshows. A typical day may have many different learning styles being targeted. Daily lesson planning becomes advancing through the slideshow roadmap the night before. Each lesson is roughly 50 minutes, but sometimes things can speed up or slow down. The best strategy is just to go at your classes own pace. The work bundle chronologically follows the interactive slideshow and you can always spend extra time assessing the quality of the writing within. If you don't quite finish a lesson, you can always pick it up the next day where you left off. The only real trick in timing is not starting a larger activity if you don't have the available time to complete. The slideshows have been designed to be a low stress, go at your classes own pace experience. Most activities are designed to be cost effective, using general materials that can be gathered from your local stores.


Additional and Printables


Dam Debate Roles to Print

Part 3 Lesson 1 Flooding Two Days


Part 3 Lesson 2 Levees Two Days

Part 3 Lesson 3 Wetlands

Part 3 Lesson 4 Hydroelectric Dams

Part 3 Lesson 5 Dam Lab

Part 3 Lesson 6 Impacts of Dams

Part 3 Lesson 7 Dam Debate three days

Part 3 Lesson 8 Salmon

Part 3 Lesson 9 Salmon Simulation

Part 3 Lesson 10 Review Game

Part 3 Lesson 11 Review Game Answers


Part 3 Materials List


Part 3 Work Bundle Answers

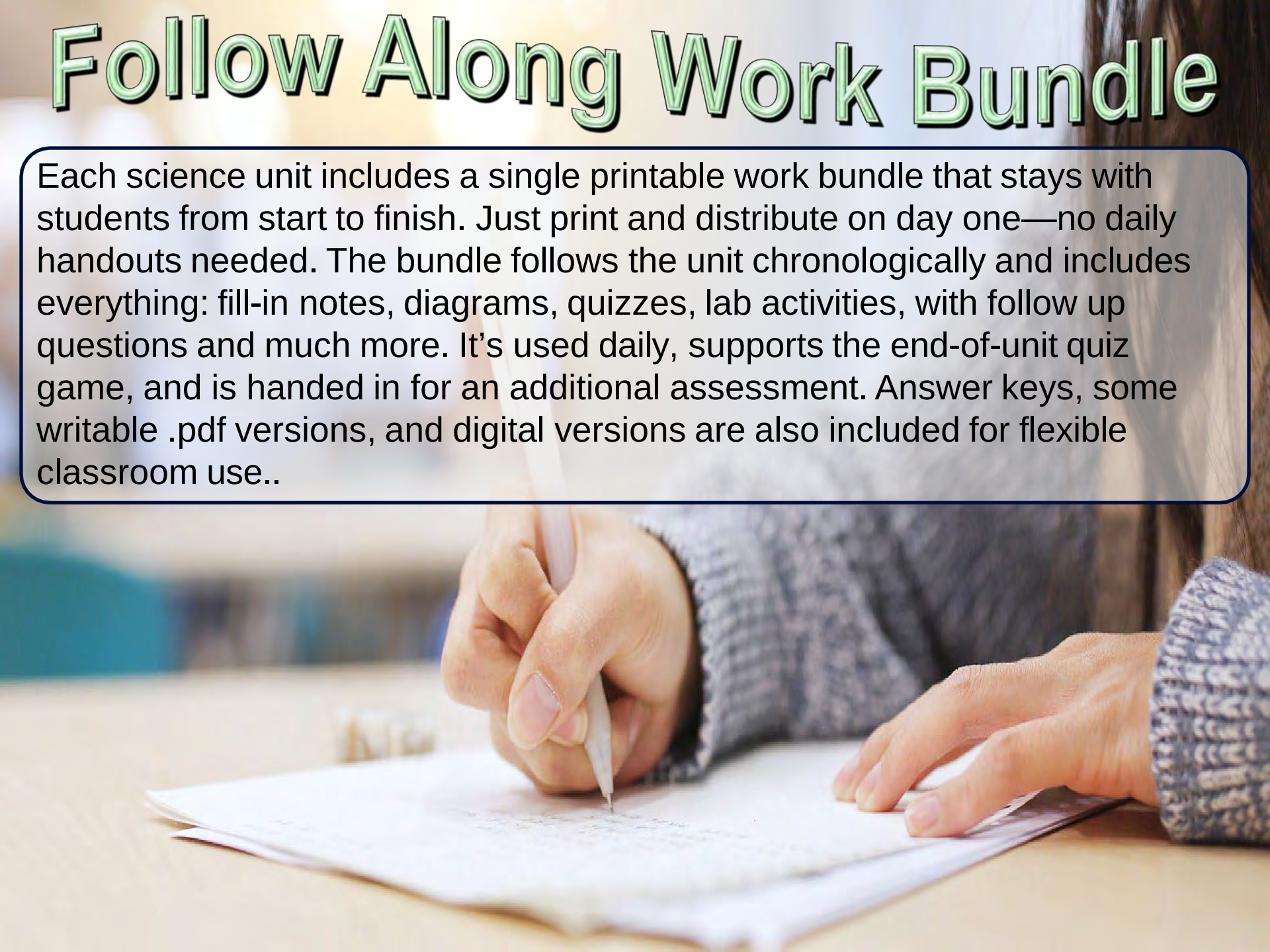

Part 3 Work Bundle Digital


Part 3 Work Bundle Print

Lessons chronologically follow a single work bundle

Follow Along Work Bundle

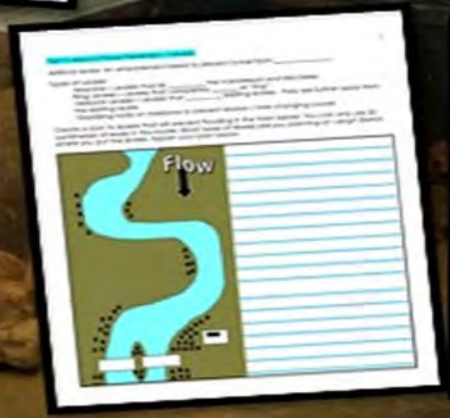
Each science unit includes a single printable work bundle that stays with students from start to finish. Just print and distribute on day one—no daily handouts needed. The bundle follows the unit chronologically and includes everything: fill-in notes, diagrams, quizzes, lab activities, with follow up questions and much more. It’s used daily, supports the end-of-unit quiz game, and is handed in for an additional assessment. Answer keys, some writable .pdf versions, and digital versions are also included for flexible classroom use..



Flooding, Dams, Levees, Impacts

Work Bundle

Example Part 1



The Aswan Dam - Facts

- Construction of the dam was in 1960
- Total cost of building the dam was estimated at over $1 billion
- One third of the cost was provided by the USSR
- 400 Soviet technicians were employed in the Dams construction.
- The Dam was completed in 1968 (but not opened till 1971)
- The dam covers an area of over 480km in length and 16 km wide
- The Hydro Electric producing capacity is 2,100 megawatts

Questions to Answer

1) Construct the benefits and problems created by the Aswan Dam. Do the benefits outweigh the problems?

2) Describe the positives and negatives (pros and cons) of the particular dam.

Which reservoir and dam will produce more electricity? Use data below

An More potential energy of position which will be converted into kinetic energy of motion. Excess Potential and thus less kinetic energy.

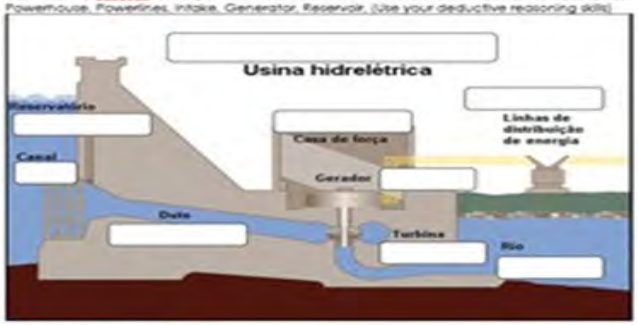
Part 2 Lesson 4 Impacts of Dams

Dams can also disrupt _____, spoil the flow of great natural rivers, and displace _____ populations.

Impacts of dams

Physical impacts	Biological impacts	Chemical impacts
-Creates _____ water -_____ sediments -no more water flows.	-Blocking _____ migrations -Reservoirs often have non-native and invasive species (fish). -Riparian habitat disrupted. -Less _____ near river -_____ of species	-Blocks _____ -Dissolved _____ in lake is different than river

Translate the Espagol to the parts of a dam below. Word Bank: River, Penstock, Turbine, Powerhouse, Powerlines, Intake, Generator, Reservoir. (Use your deductive reasoning skills)



Part 3 Lesson 5 Dam Lab

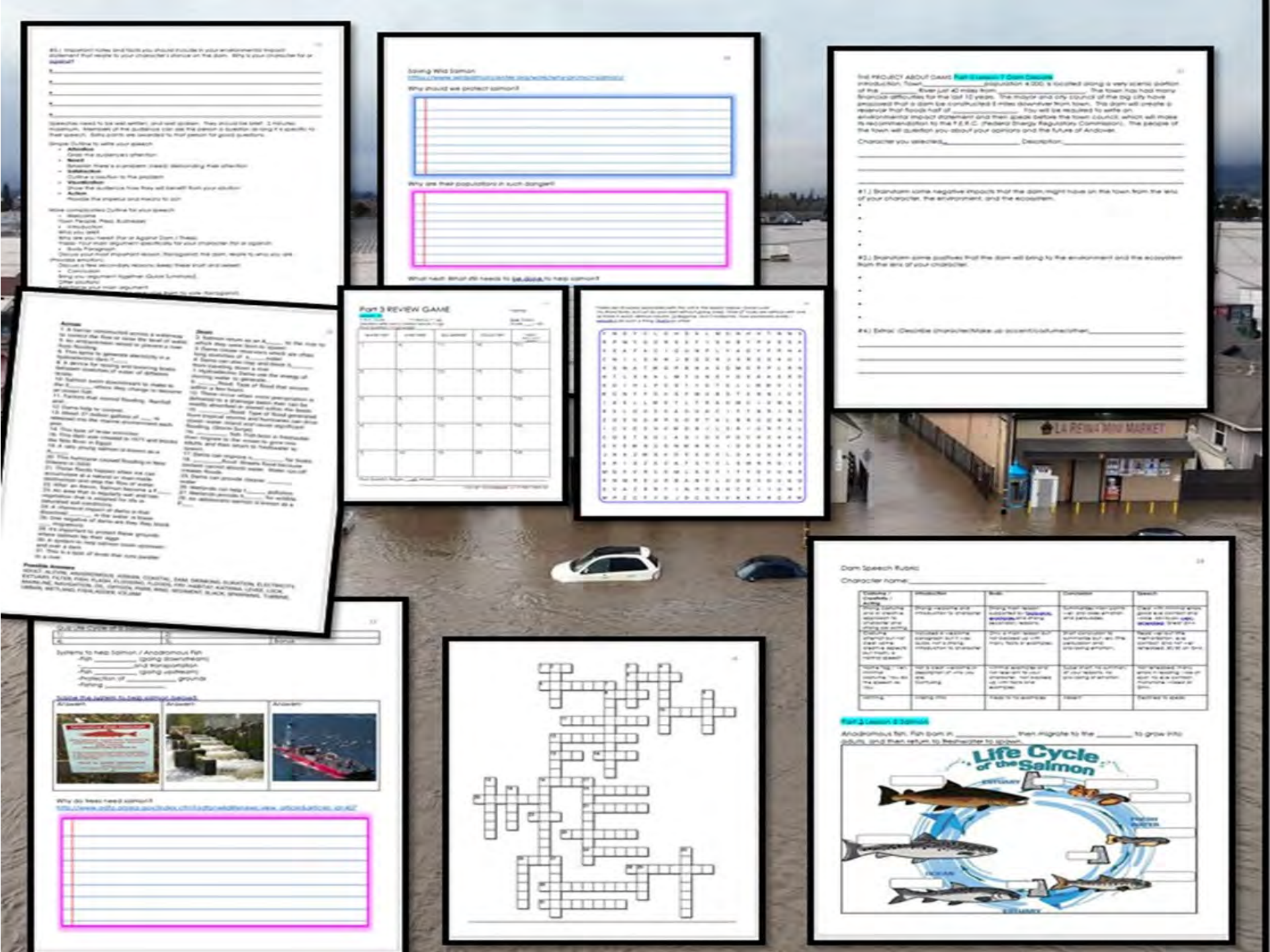
Please Average when complete

500 ml of Water	Distance / Energy
Trial 1	
Trial 2	
Trial 3	

1000 ml of Water (1 liter)	Distance / Energy
Trial 1	
Trial 2	
Trial 3	

Lock: A device for _____ and lowering boats between stretches of water of different levels.

- Write three sentences in the past tense describing how a lock system works.


Saving Wild Salmon
Why should we protect salmon?
Why are their populations in such danger?
What next! What still needs to be done to help salmon?
Part 3 REVIEW GAME
Dam Speech Rubric
Character name:
Part 3 Lesson 8 Salmon
Life Cycle of the Salmon
Systems to help Salmon // Anadromous Fish
Why do trees need salmon?
LA PERLA MINI MARKET

Part 3 Answer Version

Name:
Date:

Hurricane Katrina caused widespread flooding in New Orleans, largely due to the failure of the city's levee system, which allowed storm surge and heavy rainfall to flood 80% of the city.

Hurricane Katrina displaced hundreds of thousands of people, and resulted in significant economic and social impacts, including job loss, population decline, and long-term mental health challenges for survivors.

Hurricane Katrina was a large and powerful storm that impacted a large area of the Southern United States. Katrina reached Category 5 status in the Gulf of Mexico, with sustained winds exceeding 175 mph (280 km/h).

Life Cycle of a Salmon

Review Games / Assessments

This unit concludes with a review quiz. Answers are provided in slideshow form so students can self assess. A blank template sheet is provided in the work bundle. Students can benefit from working together in small table groups with quiet communication. You can decide if you want to allow the use of work bundles or not. These are a nice review opportunity and get the students looking through their work bundles for the answers.


Part 3 REVIEW GAME

Lesson 10

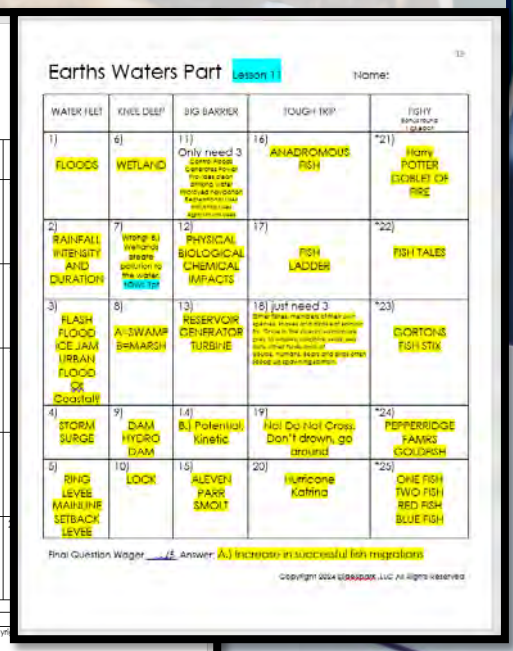
1-10 = 10 pts * = Bonus + 1 pt.

(Secretly write owl in correct space +1 pt)

Final Question = 5 pt wager

WATER FEET	KNEE DEEP	BIG BARRIER
1)	6)	11)
2)	7)	12)
3)	8)	13)
4)	9)	14)
5)	10)	15)

Final Question Wager ___/5 Answer: _____


Earths Waters Part Lesson 11 Name:

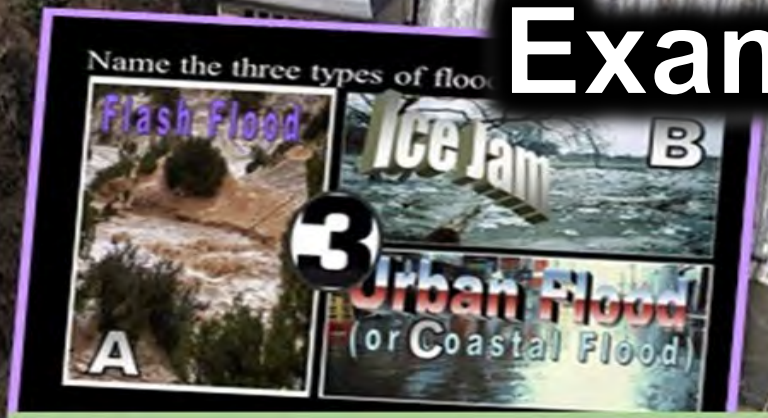
WATER FEET	KNEE DEEP	BIG BARRIER	TOUGH TRIP	FISHY
1) FLOODS	6) WETLAND	11) Only need 3	16) ANADROMOUS FISH	*21) Harry POTTER GOBLET OF FIRE
2) RAINFALL INTENSITY AND DURATION	7)	12) PHYSICAL BIOLOGICAL CHEMICAL IMPACTS	17) FISH LADDER	*22) FISH TALES
3) FLASH FLOOD ICE JAM URBAN FLOOD OR Coastal?	8) A=SWAMP B=MARSH	13) RESERVOIR GENERATOR TURBINE	18) just need 3	*23) GORTONS FISH STIX
4) STORM SURGE	9) DAM HYDRO DAM	14) B.) Potential Kinetic	19) Not Do Not Cross. Don't drown, go around	*24) PEPPERRIDGE FAMKS GOLDFISH
5) RING LEVEE MAINLINE SETBACK LEVEE	10) LOCK	15) ALEVEN PARR SMOLT	20) Hurricane Katrina	*25) ONE FISH TWO FISH RED FISH BLUE FISH

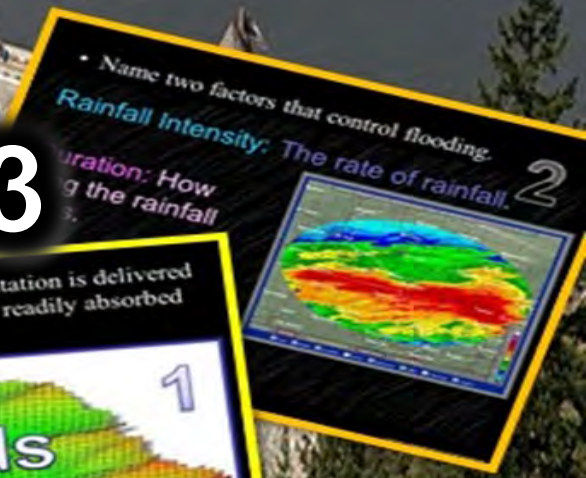
Final Question Wager ___/5 Answer: A.) Increase in successful fish migrations

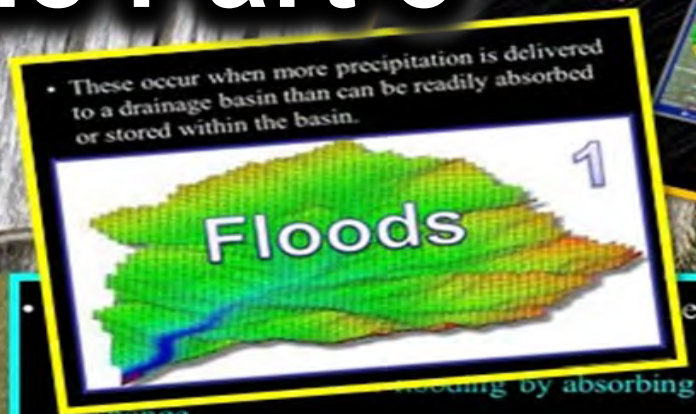
Flooding, Dams, Levees, Impacts

Quiz Game

Example Part 3







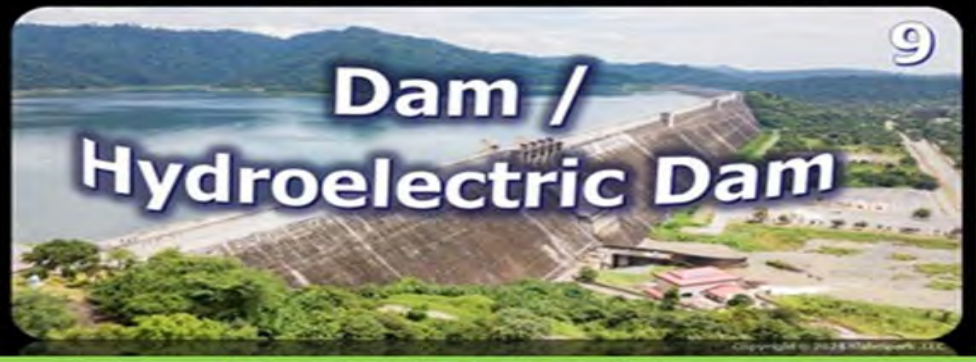
Name the three types below?

Ring Mainline Setback

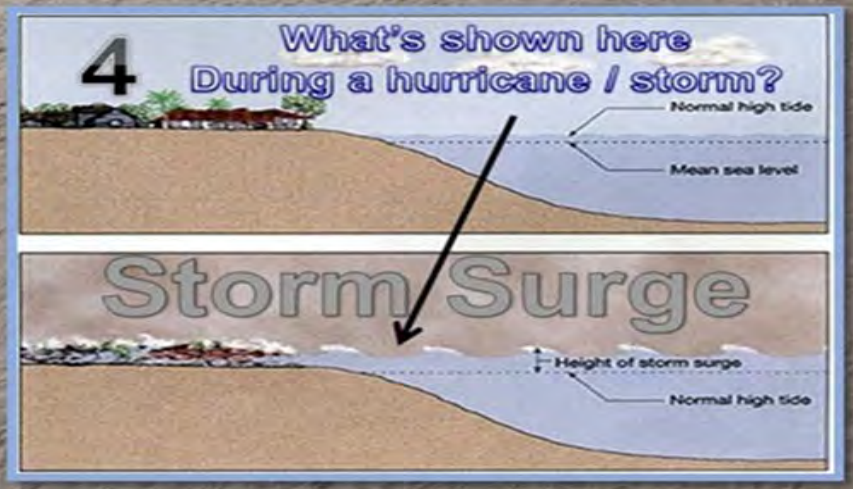
Leeves 5

This is the name for a barrier constructed across a waterway to control the flow or raise the level of water.

-Sometimes used to generate electricity.



- Name A and B?



- Name this device for raising and lowering boats between stretches of water of different levels.

- Name A, B, and C Below? (English)

13

Reservoir

A

Generator

B

C

Please name at least three benefits of hydroelectric / Dams.

11

Control Floods
Generates Power
Provides clean drinking water
Improved navigation
Recreational Uses
Industrial Uses
Agricultural Uses

~~Negatives~~
Positives!

Please name at the three big negative impacts of hydroelectric / dams.

- Physical Impacts
  - Creates slack water
  - Blocks sediments
  - No more water flows
- Chemical Impacts
  - Blocks nutrients
  - Dissolved oxygen in lake is different than river
- [redacted] Impacts
  - Blocking fish migrations
  - Reservoirs often have non-native and invasive species (fish).
  - Riparian habitat disrupted
  - Less groundwater near river
  - Extinction of species

12

- The water has potential energy (position), and creates kinetic energy (motion).
  - This motion spins a turbine which can generate electricity.

A.) Electricity, Bolt
B.) Potential, Kinetic
C.) Generation, Power
D.) Flow, Stream
E.) Diffusor, Staudamm

14

- Name the missing life cycles of a salmon:

15

Life Cycle of the Salmon

Spawner
Eggs
Alevin
Fry
Adult
Smolt
Parr

- Which is not a biological impact of dams?

A.) Increase in successful fish migrations

B.) Reservoirs often h… …d invasive species (fish).

C.) Riparian hab…

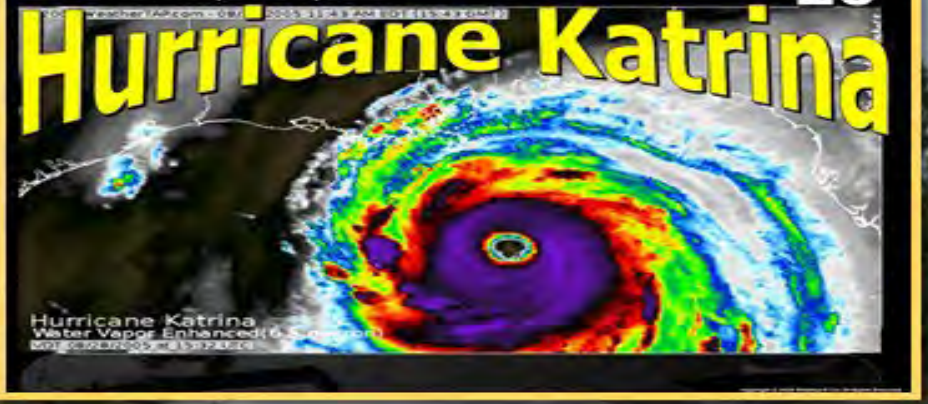
D.) Less groun…

E.) Extinction …

- This hurricane and subsequent flooding and levee failure caused devastation to New Orleans (2005).

20

Hurricane Katrina



- You're in a hurry, should you cross this low water crossing?

19

Please No!
Turn around
don't drown

- Name this system to help salmon bypass a dam?

17

Fish Ladder

- This is the name for a type of fish born in freshwater and then migrates to the ocean. The fish grows into an adult, and then returns to freshwater to spawn.

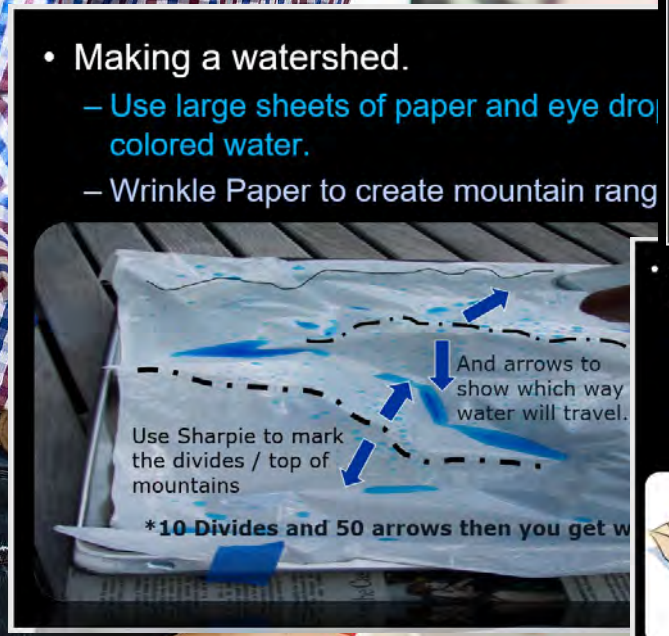
16

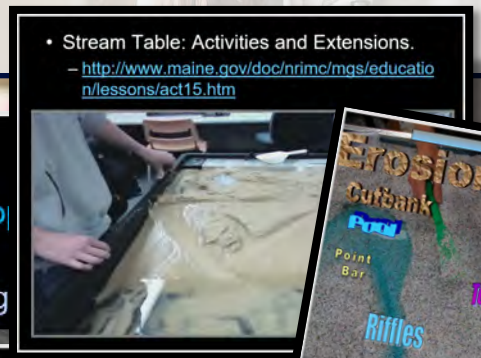
Anadromous

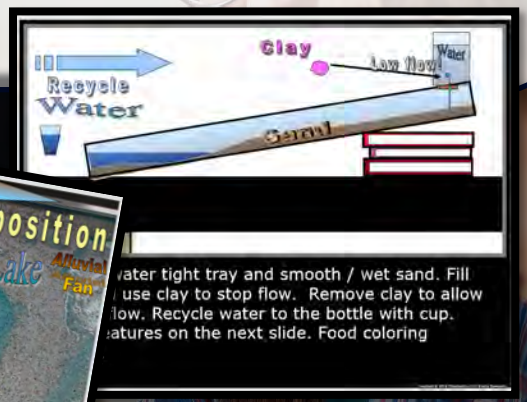
18

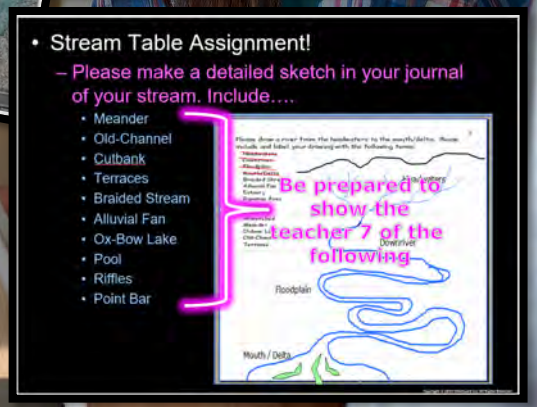
Activities / Labs

Our science activities are designed to help students explore and understand complex scientific concepts in an engaging and interactive way. Each science unit includes several hands-on activities that encourage students to collect data and think critically about the world around them. Our easy-to-follow slideshow provides detailed visuals, simple materials, and clear directions, making it easy for both students and teachers to navigate the activities.



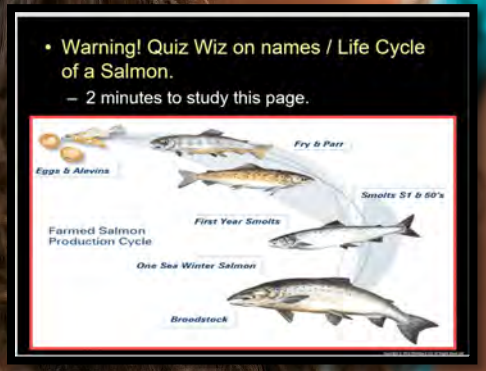


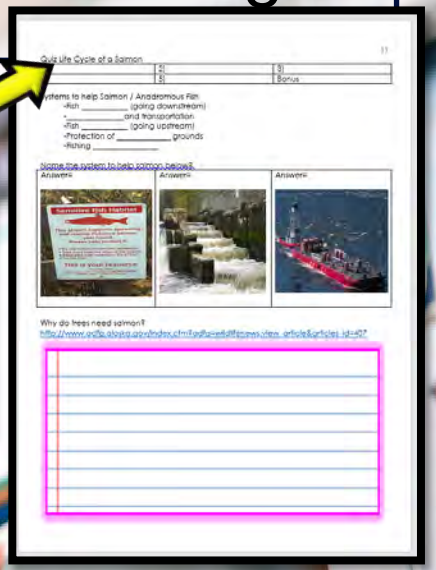




Built-in Assessment

Each unit contains several built-in assessment questions that students answer in their work bundle. With the question revealed before the answer, the teacher can easily call on individual students or table groups to respond. These provide an effective and efficient way for teachers to assess student learning.

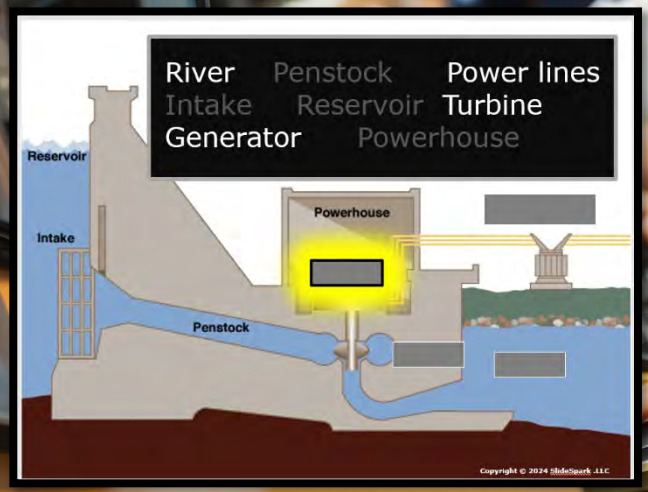


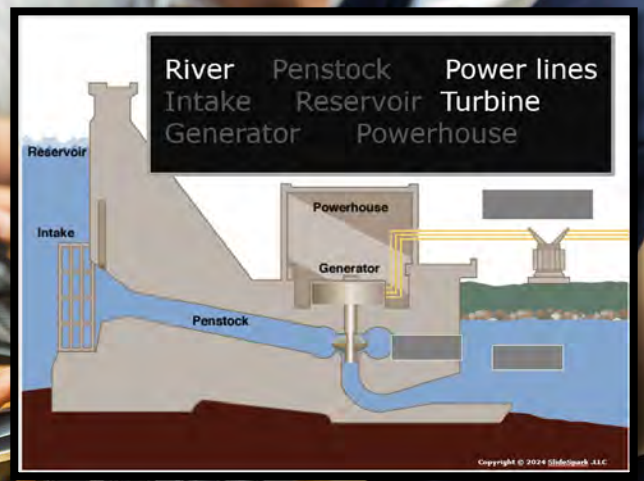


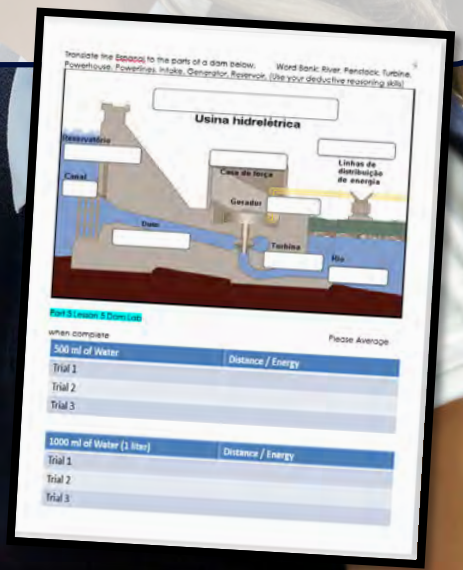
Questions in Work Bundle

Built-in Questions and Assessments

Many slides will have relevant terms covered with a box. When advancing through the slideshow an outline around the box will glow with a bright color. The next slide will make the box disappear. These slides allow the teacher to call upon students or table groups / check for understanding before advancing. The team at SlideSpark has found that using this technique helps to keep the students focused. Constantly recalling and reviewing information learned is necessary when moving through a large unit. The slideshows don't just give everything away for free. Students should be able to demonstrate knowledge before moving on. Some slides have full questions instead of just covered terms. In these slides, the teacher should encourage small group work. The teacher can then call upon one or two groups to share before advancing the slide. The next slide will always reveal the correct answer.

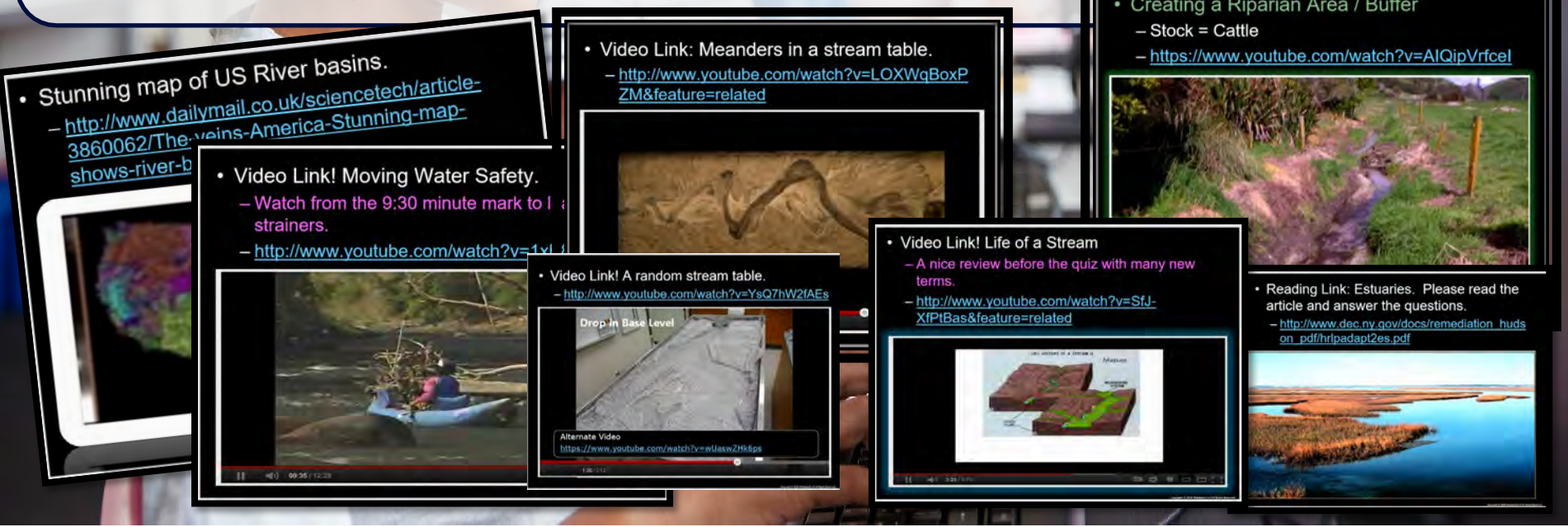






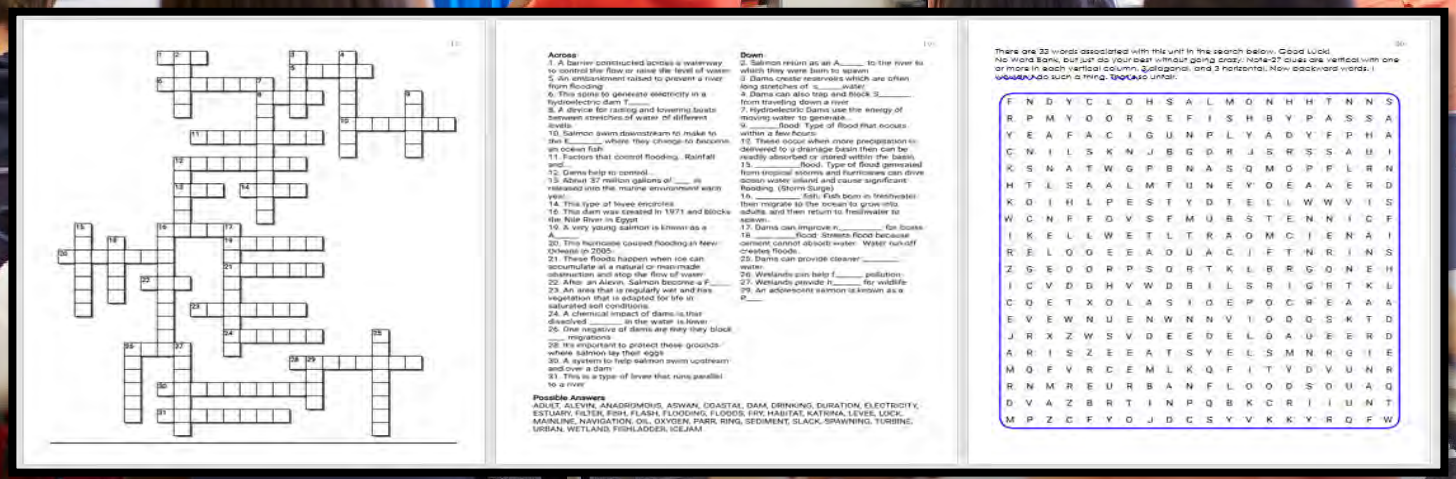
Built-in Video Links

Our science education program is designed with the modern, multimedia learner in mind, and our video links are a perfect complement to our educational materials. These short clips are embedded into the slideshow at just the right places for a fantastic review. Whether you're studying biology, chemistry or physics, our video links are an excellent way to reinforce your learning.



Games and Review

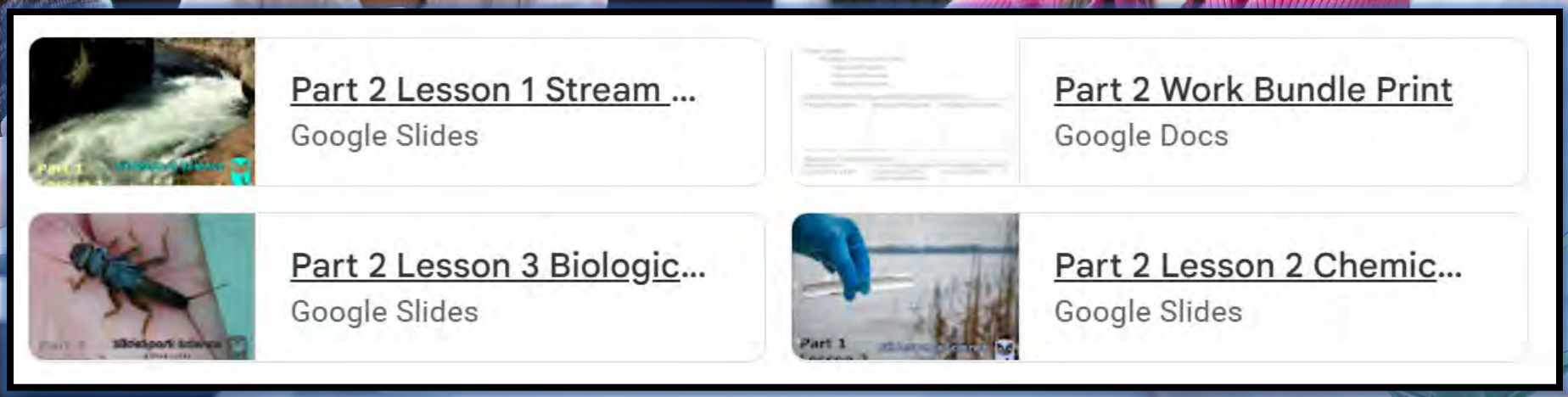
Games are a fantastic way for students to learn scientific concepts while having fun. We incorporate a variety of games into our curriculum, including interactive quizzes and puzzles that challenge students to think critically about the material. Our Hidden Box Games are a particularly popular feature, which conclude each unit by revealing a picture related to the topic. Students try to guess what the picture might be, making learning an engaging experience.



The Owl - Each Part of the slideshow has a small clipart Owl hiding somewhere in a slide. The owl is incredibly small and blended into just the right slide. If a student spots the “Owl” they can raise their hand high into the air. When you call upon the student they can say “Owl" and be the student who spotted the Owl. Each PowerPoint Review game also has an owl hiding in it worth one point. Remind the students that they secretly write the word "owl" rather than yell it out during the review games. The Owl search is not included in every lesson. A slide at the beginning of the lesson will alert the students that today is an “Owl’ day. Everything arrives editable so delete if you wish. You will find that some students will become the expert owl hunters in the group.

Google Classroom Compatible

Our digital learning programs are designed for students to learn science in a flexible and engaging environment. Our Google Classroom-compatible units provide a seamless learning experience whether your students are in the classroom or learning from home. Our step-by-step slideshows and student work bundles ensure that students can complete their work independently. The PowerPoint Slideshows and step-by-step work bundles can easily be loaded to your Google Drive and posted in your Google Classroom. These are great for daily lessons, students who need additional time, and for a student who was absent and looking to catch up in their work bundle.



Part 1 Lesson 3 Parts of a R...

Google Slides

Part 1 Lesson 5 Features an...

Google Slides

Part 1 Lesson 1 Watersheds

Google Slides

Part 1 Lesson 4 Erosion Riv...

Google Slides

Part 1 Lesson 6 Review Ga...

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Part 1 Lesson 2 Rivers US

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Part 3 Lesson 6 Impacts of ...

Google Slides

Part 3 Lesson 5 Dam Lab

Google Slides

Part 3 Lesson 3 Wetlands

Google Slides

Part 3 Lesson 9 Salmon Si...

Google Slides

Part 3 Lesson 2 Levees Two...

Google Slides

Part 3 Lesson 10 Review Ga...

Google Slides

Part 3 Lesson 4 Hydroelect...

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Part 3 Lesson 8 Salmon

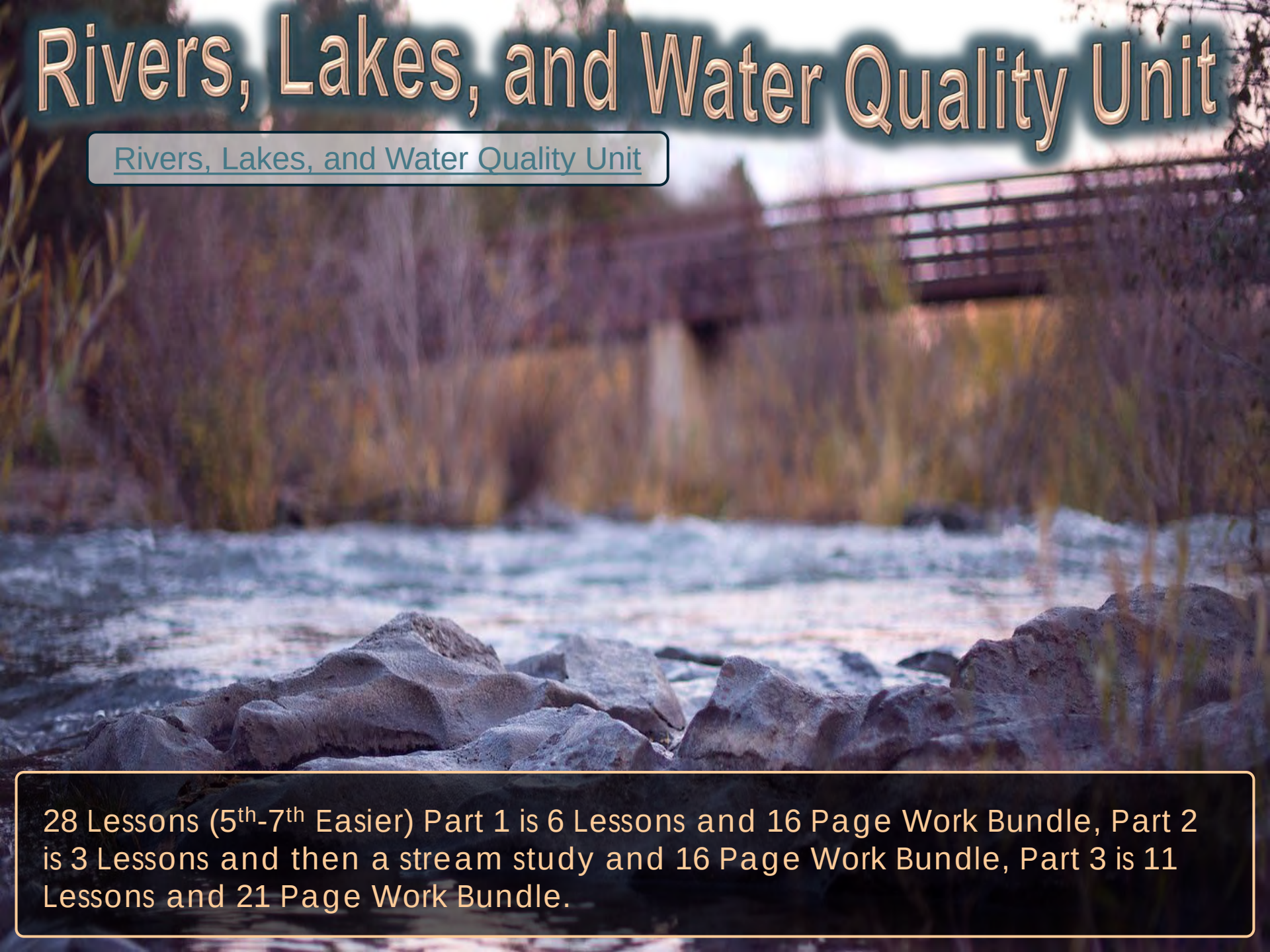
Google Slides

Part 3 Lesson 7 Dam Debat...

Google Slides

Rivers, Lakes, and Water Quality Unit

Rivers, Lakes, and Water Quality Unit



28 Lessons (5th-7th Easier) Part 1 is 6 Lessons and 16 Page Work Bundle, Part 2 is 3 Lessons and then a stream study and 16 Page Work Bundle, Part 3 is 11 Lessons and 21 Page Work Bundle.

Part 1: Rivers and Watersheds: Watersheds, Making a Watershed Activity, Major Rivers of the United States, Parts of a River, Stream Order, Erosion, Transport, Deposition, Parts of a River, Headwaters, Downriver, Floodplain, Mouth / Delta, Design a River from the Mtns to the Ocean Class Activity, Meanders, Cutbank, Point bar, Riffles, Oxbow Lakes, Old-channels, Braided Stream, Alluvial Fan, Terraces, Riparian Areas, Importance of Riparian Areas, Stream Table Activity, Box Game Review, Crossword Puzzle, End Unit Assessment with Answer Version so students can Self-Assess

Part 2: Water Quality: Water Quality, Physical Properties of Water, Chemical Properties of Water, Bio-Indicators of Water Quality Physical Properties of Water Quality, Stream Discharge and Data Collection, Chemical Testing of Water Quality Sheet, Biological Testing, Benthic Macroinvertebrates, (EPT richness),Identifying Macros and Collection, Writing a Stream Quality Assessment

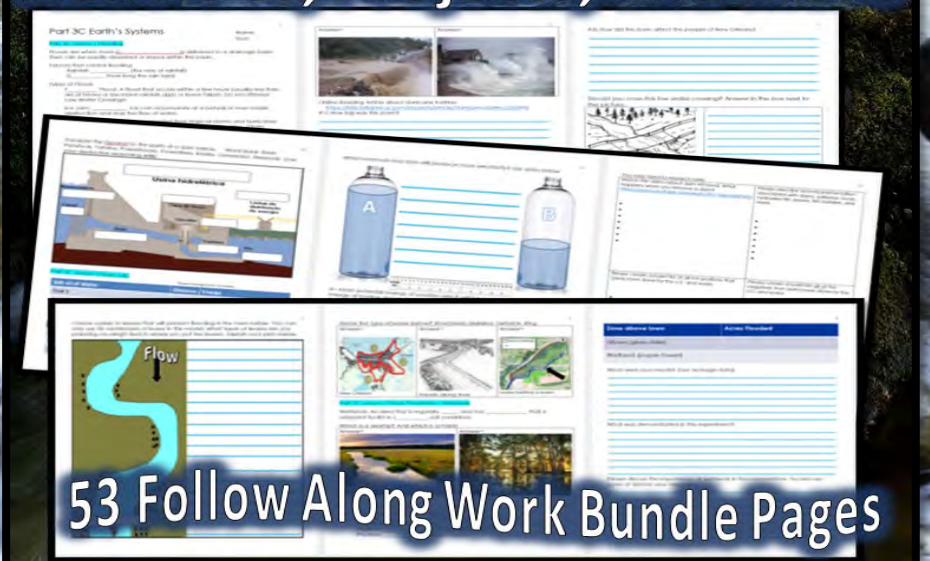
Part 3: Flooding, Levees, Dams, Wetlands, Salmon : Flooding, Factors that Control Flooding, Types of Floods, Coastal Floods, Urban Floods, Flash Floods, Ice Jams, Case Study of Hurricane Katrina, Flood Prevention, Levees, Types of Levees, Levee Design Project, Importance of Wetlands, Wetlands vs. Urbanization Activity, Dams, Hydroelectric Dams, Aswan Dam Case Study, Parts of Dam, Locks and how they work, High and Low Head Dams and Activity, Positive and Negatives of Dams, Dam Debate Role Play Project, Salmon, Salmon Life Cycles, Salmon Case Study, Salmon Simulation Activity, Box Game Review, Crossword Puzzle, End Unit Assessment with Answer Version so students can Self-Assess

Rivers, Lakes, Water Quality Unit

20 + Lessons

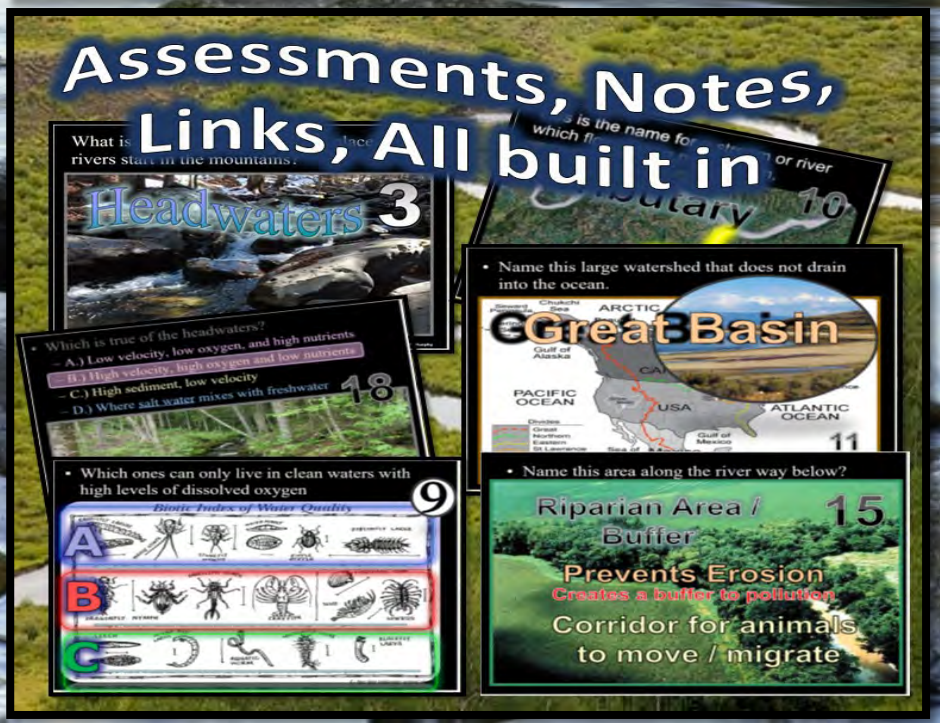
Amazing and Interactive Slideshows

Work Bundles, Hands-on Activities, Projects, and more



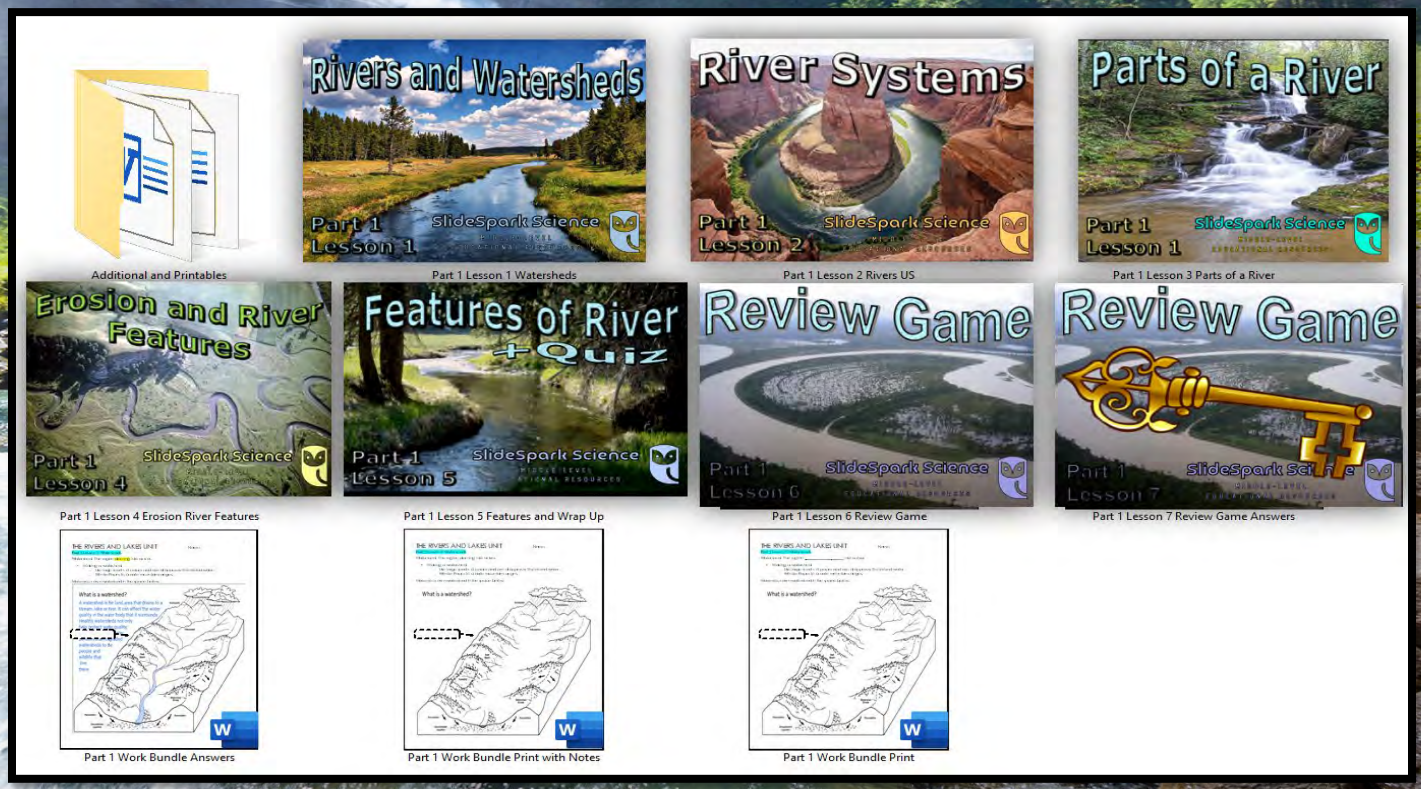
53 Follow Along Work Bundle Pages

Assessments, Notes, Links, All built in



Part 1 Rivers and Watersheds: Watersheds, Making a Watershed Activity, Major Rivers of the United States, Parts of a River, Stream Order, Erosion, Transport, Deposition, Parts of a River, Headwaters, Downriver, Floodplain, Mouth / Delta, Design a River from the Mtns to the Ocean Class Activity, Meanders, Cutbank, Point bar, Riffles, Oxbow Lakes, Old-channels, Braided Stream, Alluvial Fan, Terraces, Riparian Areas, Importance of Riparian Areas, Stream Table Activity

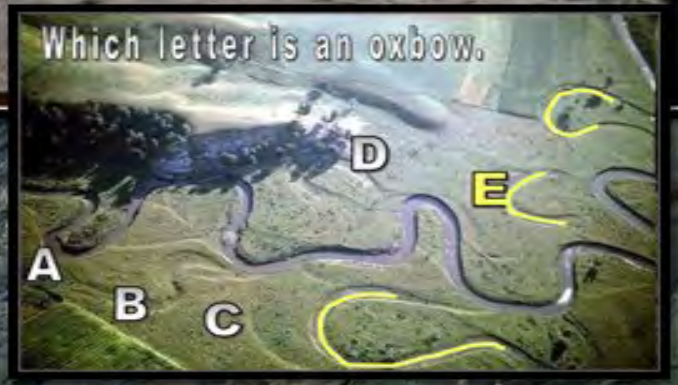
Part 1: Rivers and Watersheds



Rivers and Watersheds

- Making a watershed.
  - Use large sheets of paper and eye droppers with colored water.
  - Wrinkle Paper to create mountain ranges.

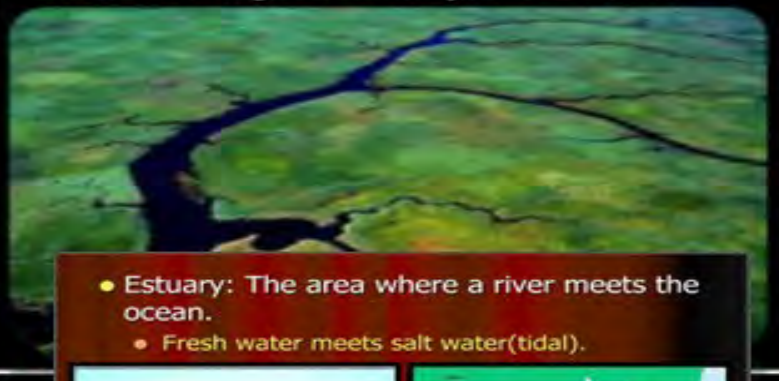
- Deposition: Process by which fragments of rock are deposited in a new location.



- Rivers generally start in the…
- A.) Ocean
- B.) Mouth and Delta
- C.) Mountains
- D.) Floodplain
- E.) Nobody Knows

12

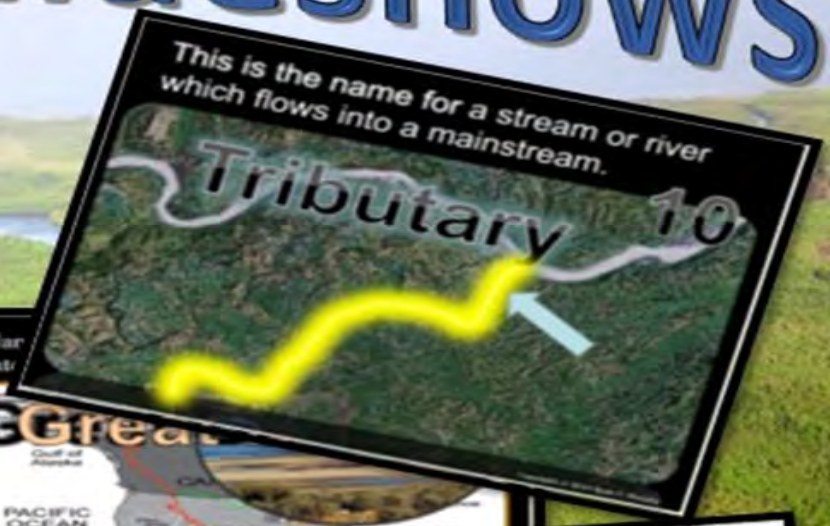
- Small streams joint together to create larger streams. Larger streams join into rivers.

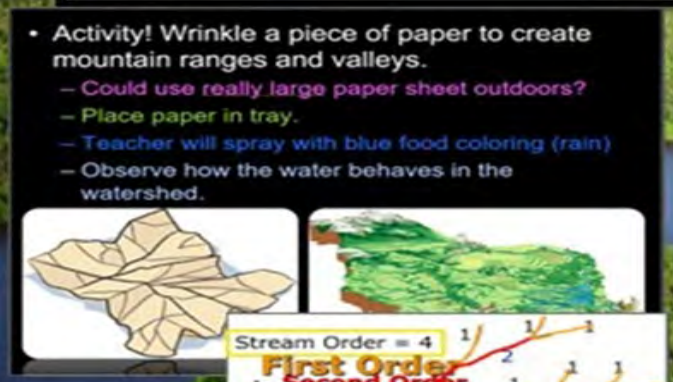


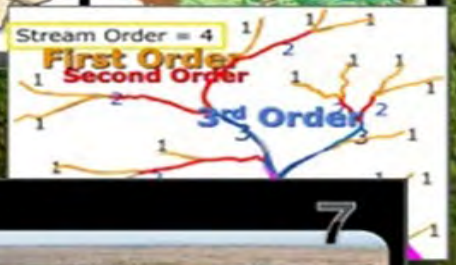
- Estuary: The area where a river meets the ocean.
  - Fresh water meets salt water(tidal).

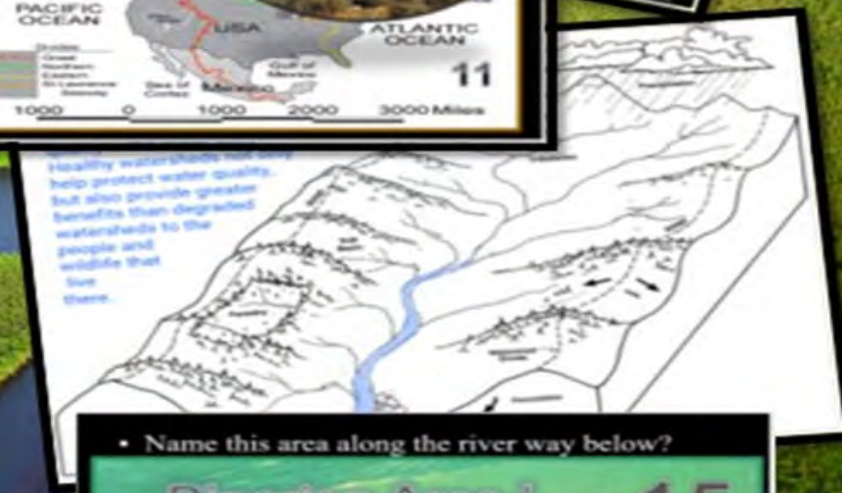
6 Lessons

Interactive Slideshows

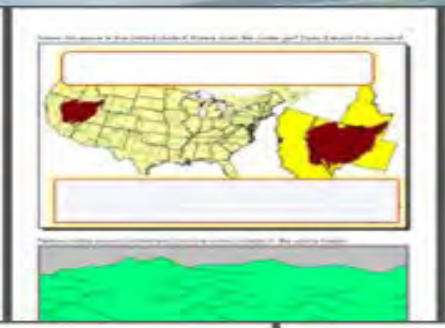


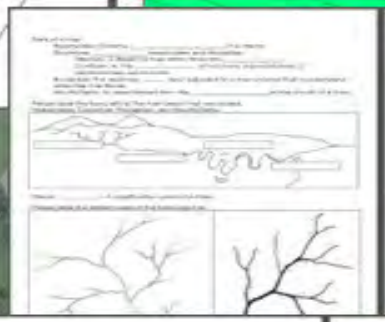


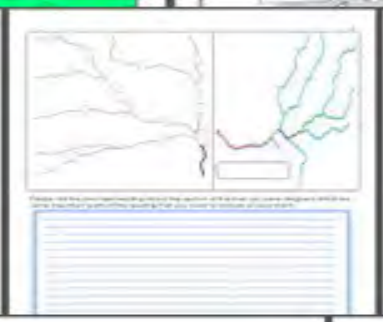


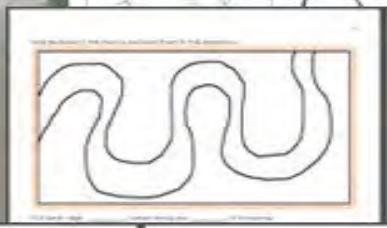


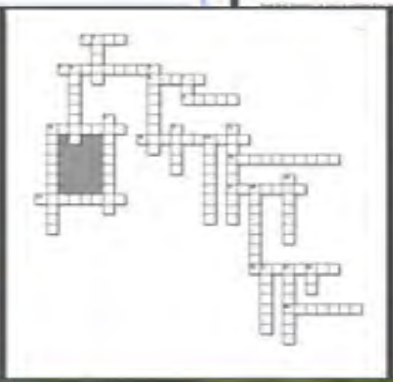
Follow Along Bundle





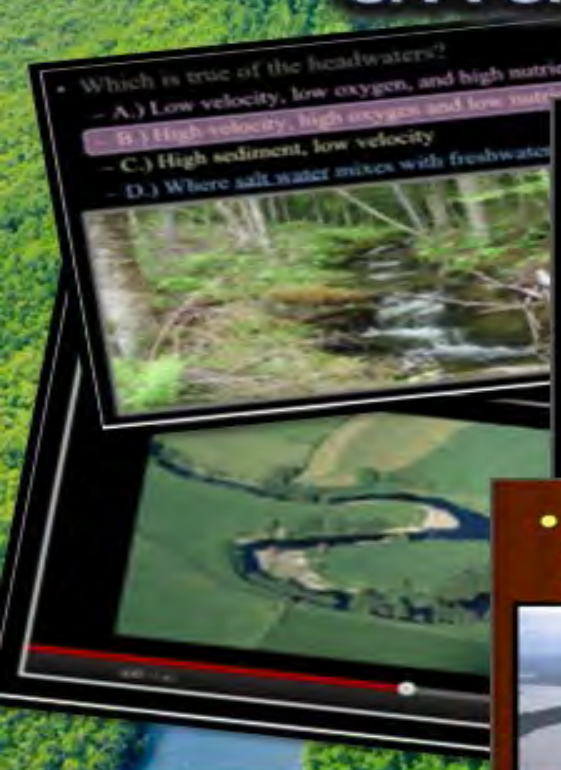


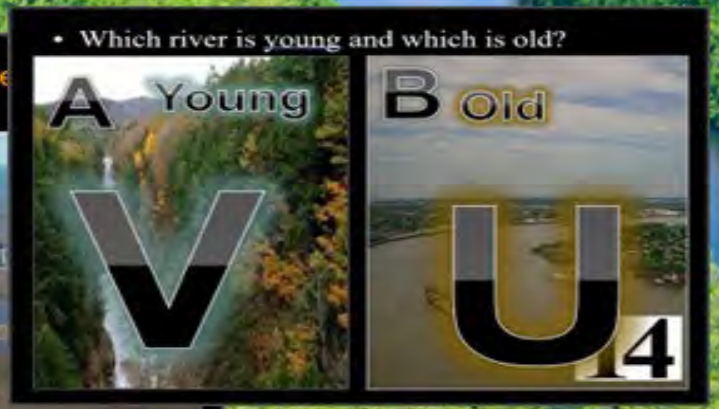


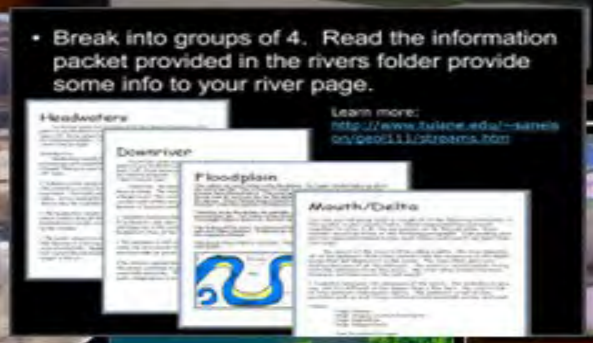


16 pages

Activities, Assessments, Keys, and more all built-in







Part 2: Water Quality, Physical Properties of Water, Chemical Properties of Water, Bio-Indicators of Water Quality Physical Properties of Water Quality, Stream Discharge and Data Collection, Chemical Testing of Water Quality Sheet, Biological Testing, Benthic Macroinvertebrates, (EPT richness),Identifying Macros and Collection, Writing a Stream Quality Assessment

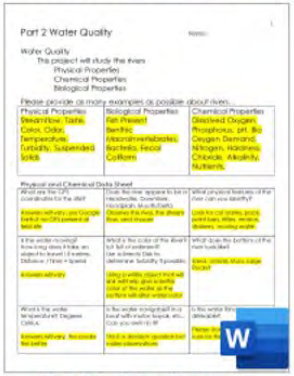
Part 2: Water Quality

Water Quality

Part 2 Lesson 1 Stream Flow

Part 2 Lesson 2 Chemical Testing

Part 2 Lesson 3 Biological Two Days

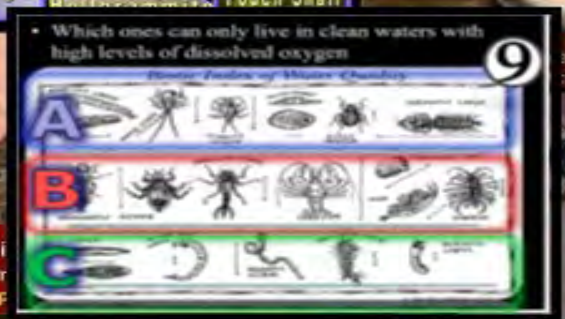


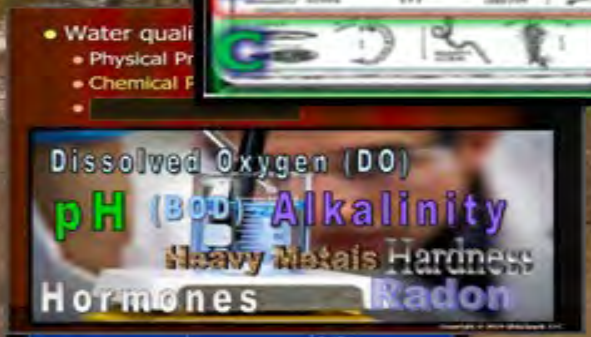
Part 2 Work Bundle Answers

Part 2 Work Bundle Print

Water Quality Unit Stream Study

Preview is a compressed file





Interactive Slideshows

There's one part of pollution

Can you find the one part per million of pollution on the next slide.

- Benthic Macroinvertebrates.

Benthic: Living on the bottom

Macro: Large

Micro-Small

- Biological: The following live only in unpolluted waters with high levels of dissolved oxygen
  - E- Ephemoptera (Mayfly)
  - P- Plecoptera (Stonefly)
  - T- Tricoptera (Caddisfly)

EPT's

Who wants to tr... saying their name

  - Megaloptera (Hellgrammite)
  - Coleoptera (Waterpenny)
  - Gilled Snail

Learn more about benthic macro-invertebrates at...
http://www.dep.wv.gov/WWE/getinvolved/sos/Pages/Benthics.aspx

- The following can tolerate polluted waters and low dissolved oxygen content. (Class III).
  - Worms
  - Pouch Snails
  - Leeches
  - Midge Larvae
  - Cranefly Larvae
  - Black fly Larvae

- The following can tolerate polluted wa... and low dissolved oxygen content. (C...
  - Worms
  - Pouch Snails
  - Leeches
  - Midge Larvae
  - Cranefly Larvae
  - Black fly Larvae

- Quiz 1-20 Name that Benthic Macro-Invertebrate.
  - Teacher to decide if you can use your sheet.

QUIZ

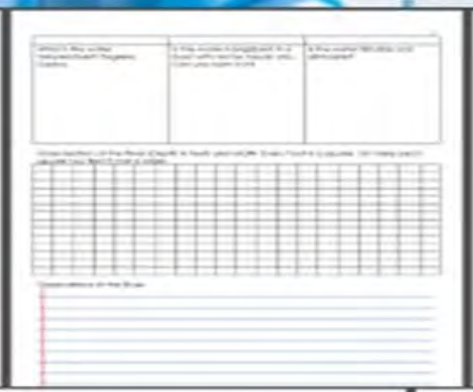
- Biological
  - Fecal coliform, bio...

- Facultative Vernal Pool Species: Species that can use vernal pools for all or portions of their life cycle, but successfully complete their lifecycles in other water bodies.

- Vernal Pool: Seasonal wetland area that is dry and largely uninhabited for much of the year, until rains arrive and fill it with water; it teems with life again.

- Most of the insects that we see actually live most of their life in the water.
  - They emerge from the water to complete their life cycle.

Follow Along Bundle

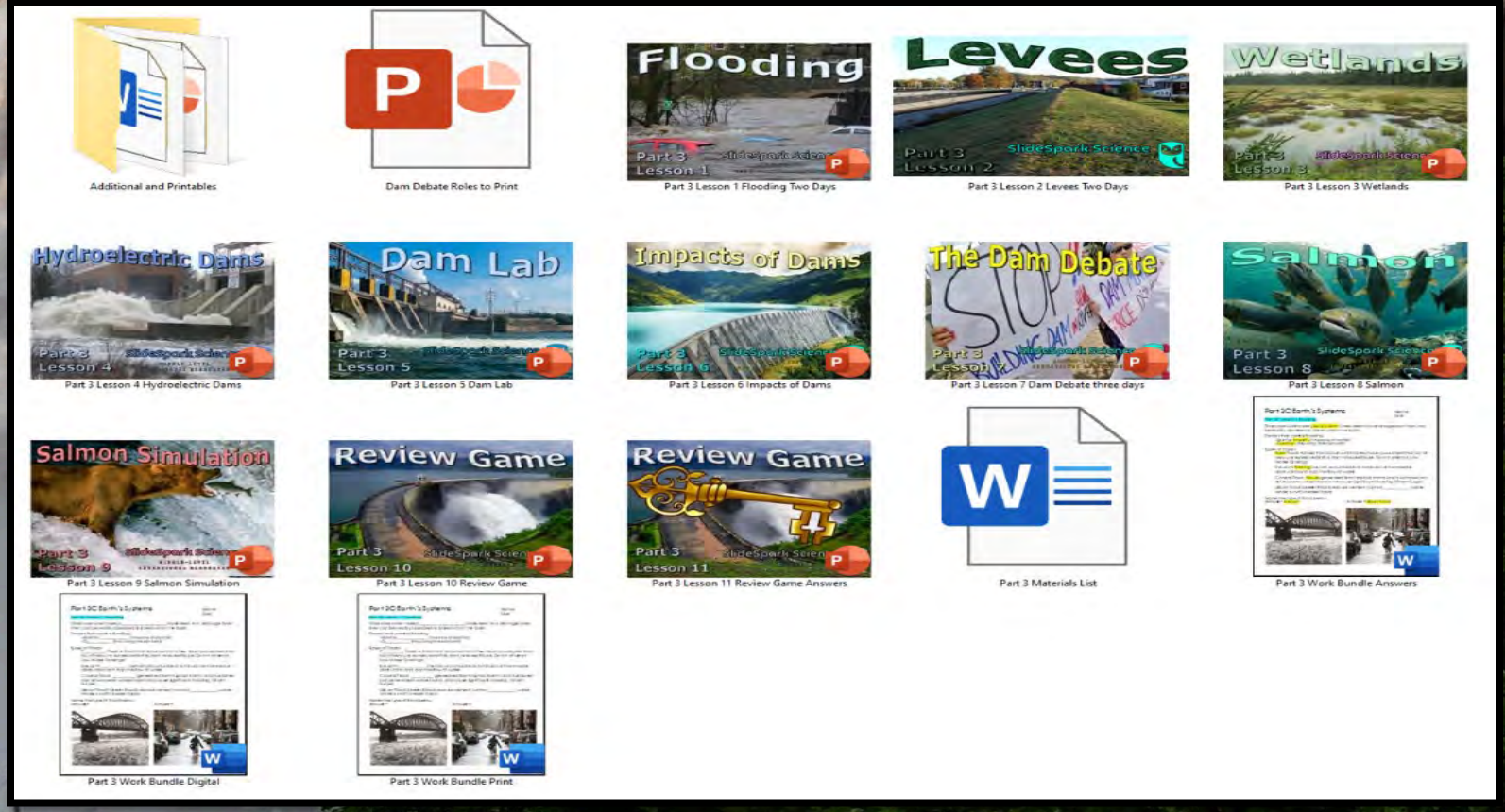


15 Pages

Activities, Assessments, Keys and more all built-in

Part 3: Flooding, Factors that Control Flooding, Types of Floods, Coastal Floods, Urban Floods, Flash Floods, Ice Jams, Case Study of Hurricane Katrina, Flood Prevention, Levees, Types of Levees, Levee Design Project, Importance of Wetlands, Wetlands vs. Urbanization Activity, Dams, Hydroelectric Dams, Aswan Dam Case Study, Parts of Dam, Locks and how they work, High and Low Head Dams and Activity, Positive and Negatives of Dams, Dam Debate Role Play Project, Salmon, Salmon Life Cycles, Salmon Case Study, Salmon Simulation Activity,

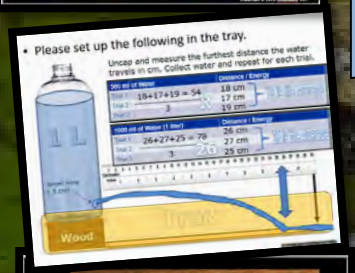
Part 3: Flooding, Levees, Dams, Wetlands, Salmon



Unit Highlights

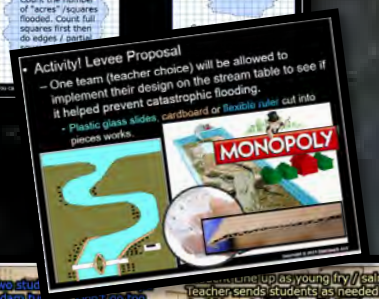
Dam Debate Role Play

Hydroelectric Dam Activity



Wetland vs Urbanization Flooding Activity

Levee Proposal Project



Salmon Simulation

Flooding, Levees, Wetlands, Dams, Salmon, More Unit

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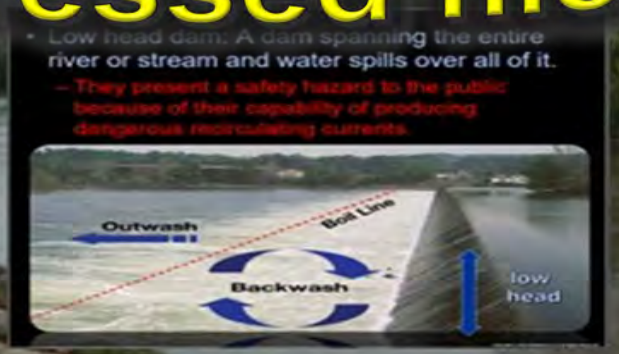
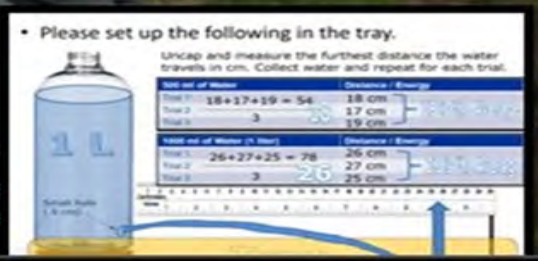
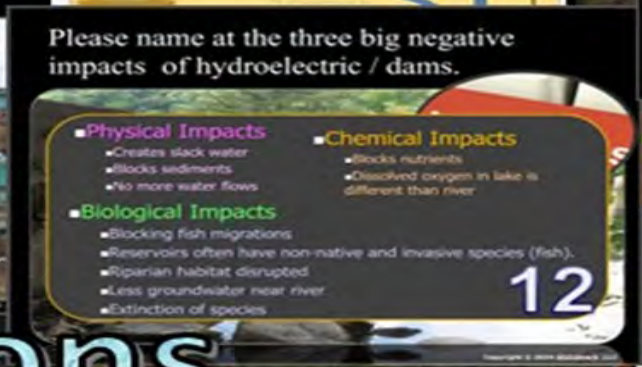
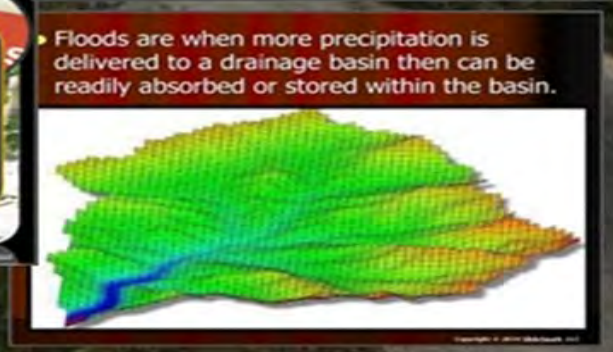
more money than all other natural disaste
combined.



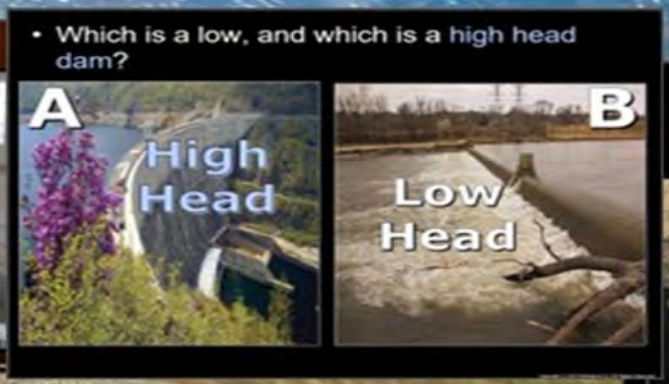




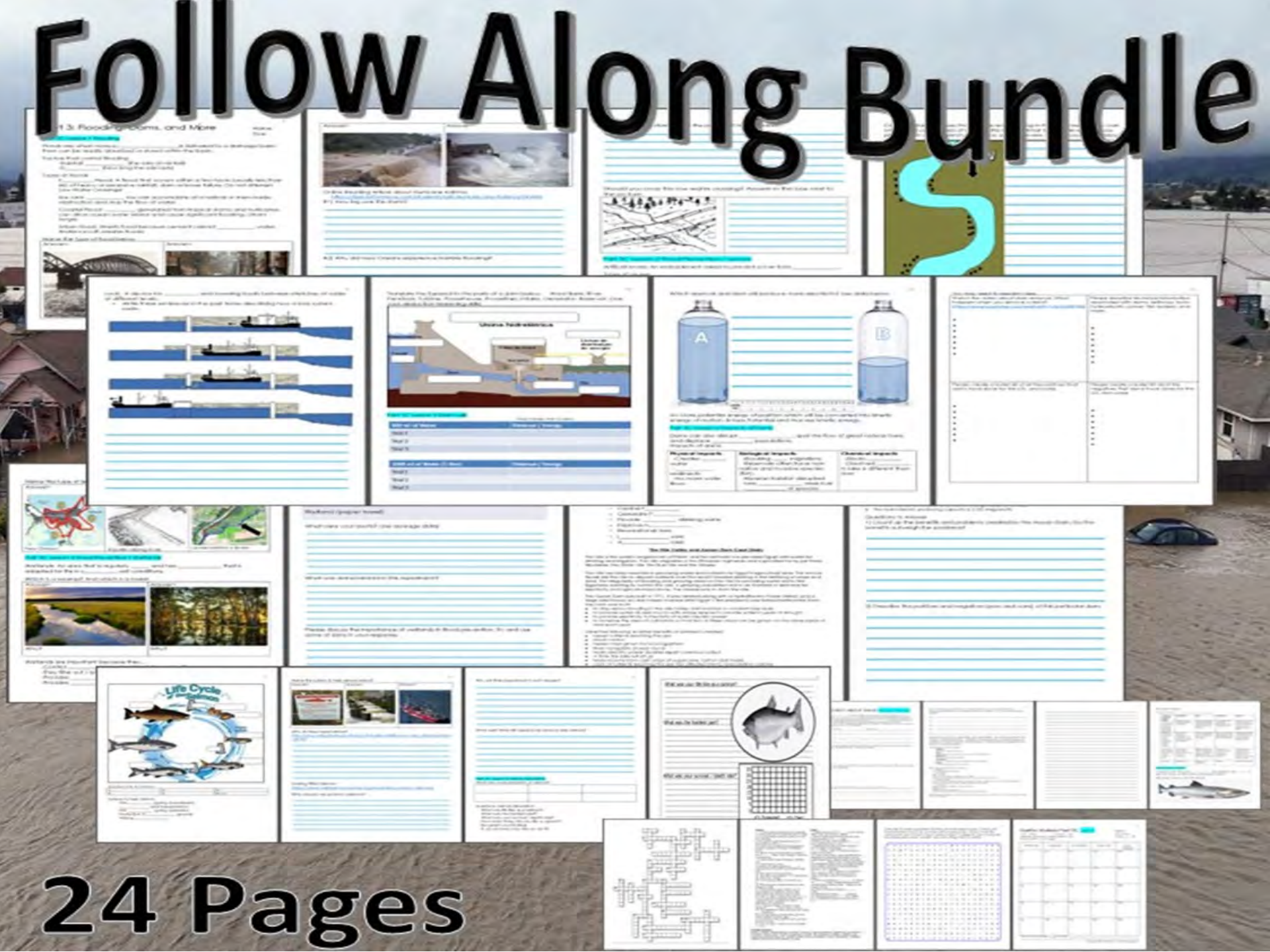


11 Lessons

Interactive Slideshows



Follow Along Bundle



24 Pages

Activities, Assessments, Keys, and more all built-in

- Biological Impacts
  - Blocking fish migrations
  - Reservoirs often have non-
    species (fish).
  - Riparian habitat disrupted
  - Less groundwater near rive
  - Extinction of species

- Dams are accumulative.
  - If 5% of the salmon are lost at each dam, what % of juvenile salmon will even make it to the ocean?

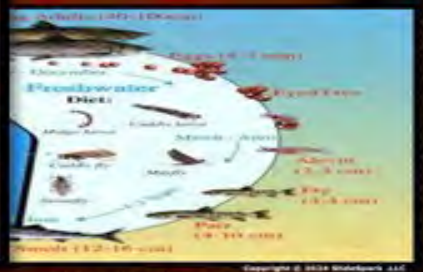
- Removing Dams
  - https://www.youtube.com/watch?v=VipVo8zPH0U

- Chemical Impac
  - Blocks nutrients
  - Dissolved oxygen in lake is different than river

- Activity! The Dam De
  - You will role play, write, and present a persuasive speech about a dam proposal in a small town.

- Wetlands: An area that is regularly wet and has vegetation that is adapted for life in saturated-soil conditions.

Fish born in freshwater
e ocean to grow into
eturn to freshwater to



Curriculum Guide

Number of Lessons in each unit (50 min, daily lessons) and difficult rating scale / intended grade level.

=Easier,


= More difficult,


=Most difficult

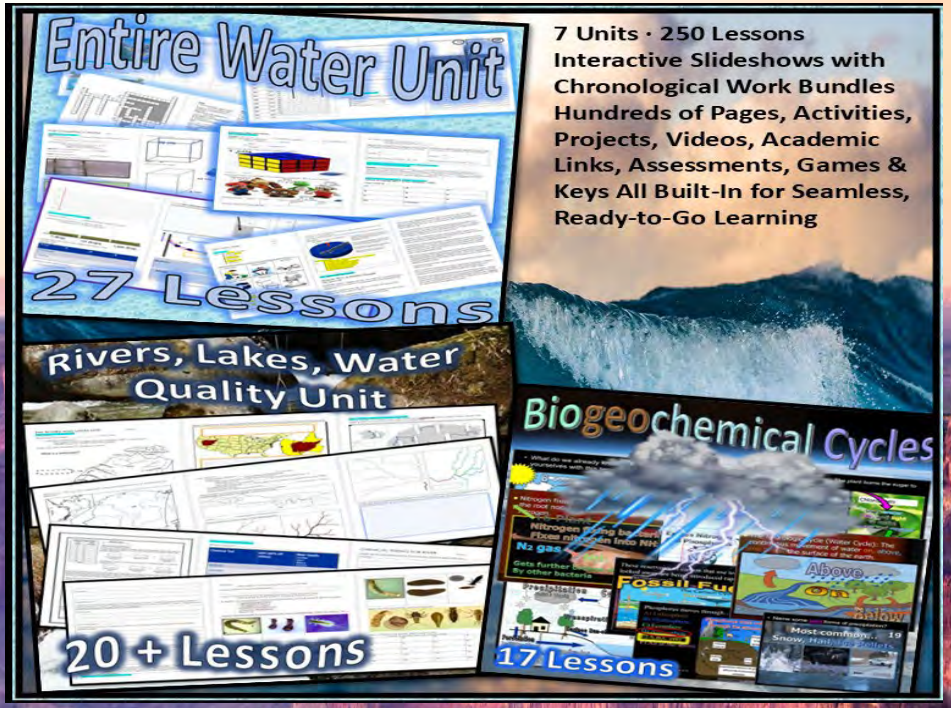
Earth Science Units	Daily Lessons	Intended Grade	
Geology Topics Unit	60 Lessons	6-8 medium difficulty	MORE DIFFICULT
Weather and Climate Unit	40 Lessons	6-8 medium difficulty	MORE DIFFICULT
Astronomy Unit	60 Lessons	6-8 medium difficulty	MORE DIFFICULT
Weathering, Soil Sciences	28 Lessons	5-7 easier	EASIEST
Rivers and Water Quality	25 Lessons	5-7 easier	EASIEST
Water Molecule Unit	20 Lessons	5-7 easier	EASIEST
Biogeochemical Cycles Unit	16 Lessons	5-7 easier	EASIEST

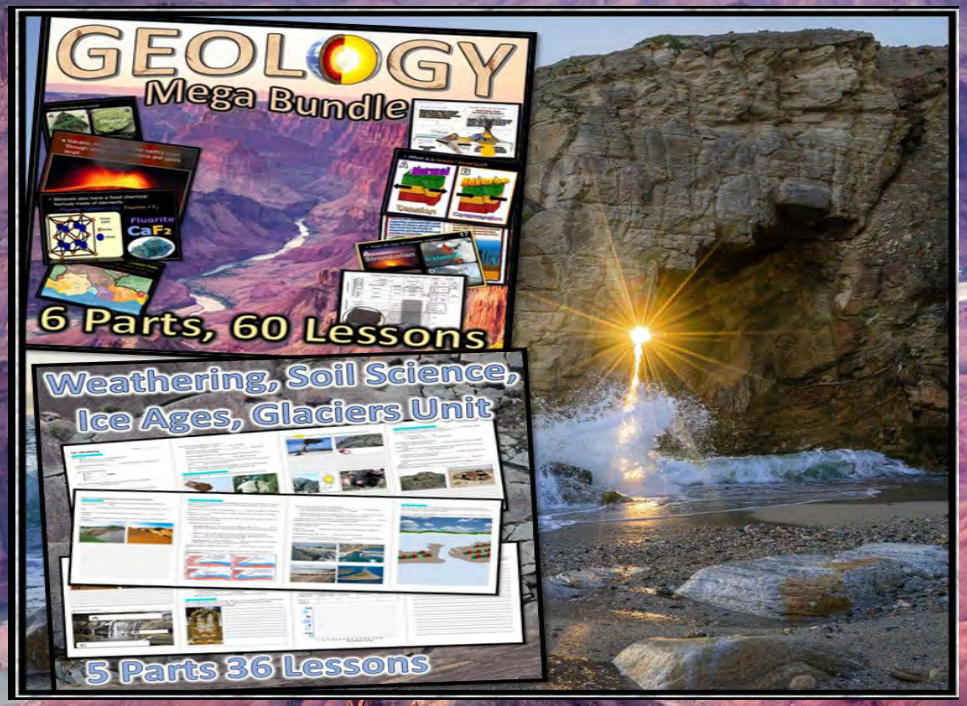
Earth Science Curriculum

Earth Science Curriculum

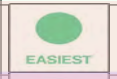
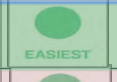
SlideSpark Science

MIDDLE-LEVEL EDUCATIONAL RESOURCES



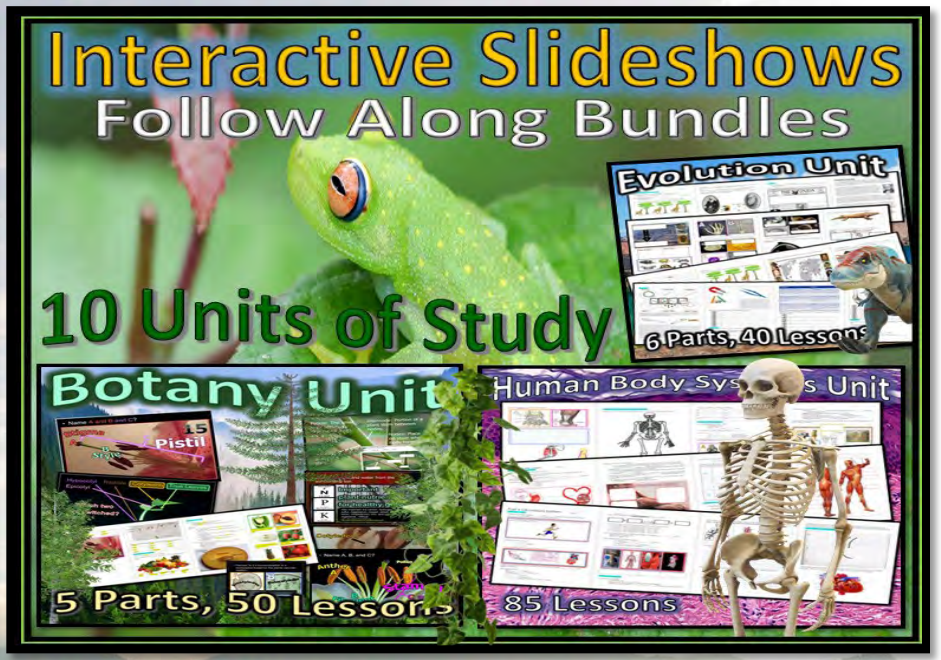


Life Science Units

	Daily Lessons	Intended Grade	
Ecology Feeding Levels Unit	13 Lessons	5-6 easier	
Ecology Interactions Unit	30 Lessons	5-6 easier	
Ecology Abiotic Factors Unit	13 Lessons	5-6 easier	
Botany Unit	50 Lessons	5-7 easier	
Evolution and Natural Selection	40 Lessons	5-7 easier	
Taxonomy and Classification	50 Lessons	6-8 medium difficulty	
Infectious Diseases Unit	30 Lessons	7-9 more difficult	
DNA and Genetics Unit	42 Lessons	8-10 most difficult	
Human Body Systems Unit	85 Lessons	6-8 medium difficulty	
Cell Biology Unit	30 Lessons	8-10 most difficult	

Life Science Curriculum


Life
Science
Curriculum
SlideSpark Science
MIDDLE-LEVEL
EDUCATIONAL RESOURCES


Interactive Slideshows
Follow Along Bundles
10 Units of Study
Evolution Unit
6 Parts, 40 Lessons
Botany Unit
5 Parts, 50 Lessons
Human Body Sys s Unit
85 Lessons


Cellular Biology Unit
Form Follows Function
30 Lessons of 50 minutes
DNA and Genetics Unit
40 Lessons
Infectious Diseases
30 Lessons


Taxonomy and Classification Unit
6 Parts
50 Lessons
Ecology Interactions Unit
30 Lessons
Ecology Feeding Le
Full Unit
Ecology Abiotic Factors Unit
27 Lessons

Physical Science	Daily Lessons	Intended Grade	
Laws of Motion and Machines Unit	33 Lessons	8-10 most difficult	
Matter Energy and the Environment	58 Lessons	7-10 medium difficulty	
Atoms and Periodic Table Unit	44 Lessons	8-10 most difficult	
Science Skills Unit	30 Lessons	5-7 medium difficulty	

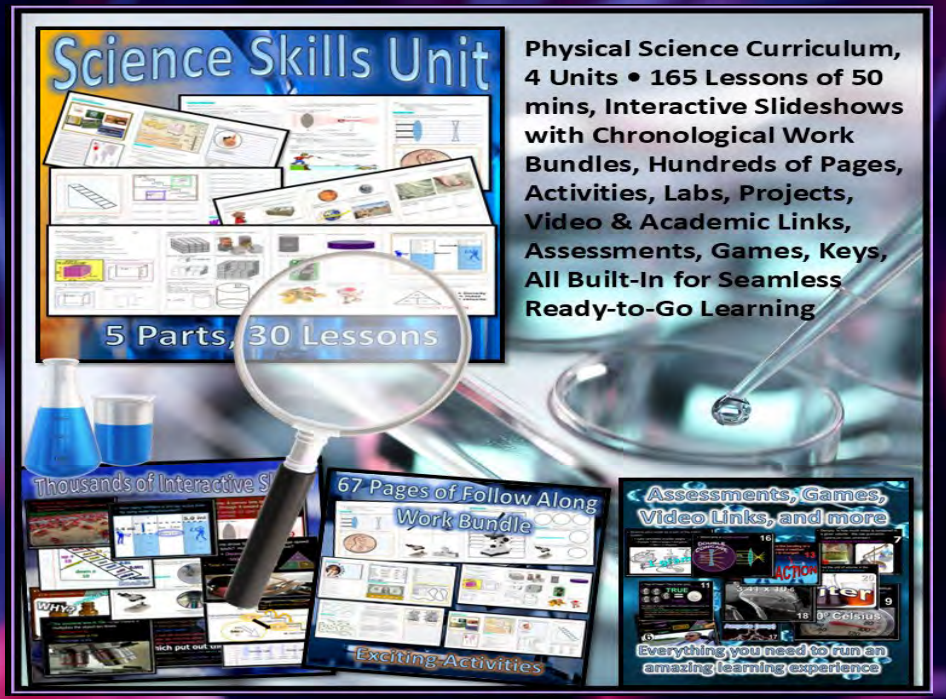
Physical Science Curriculum

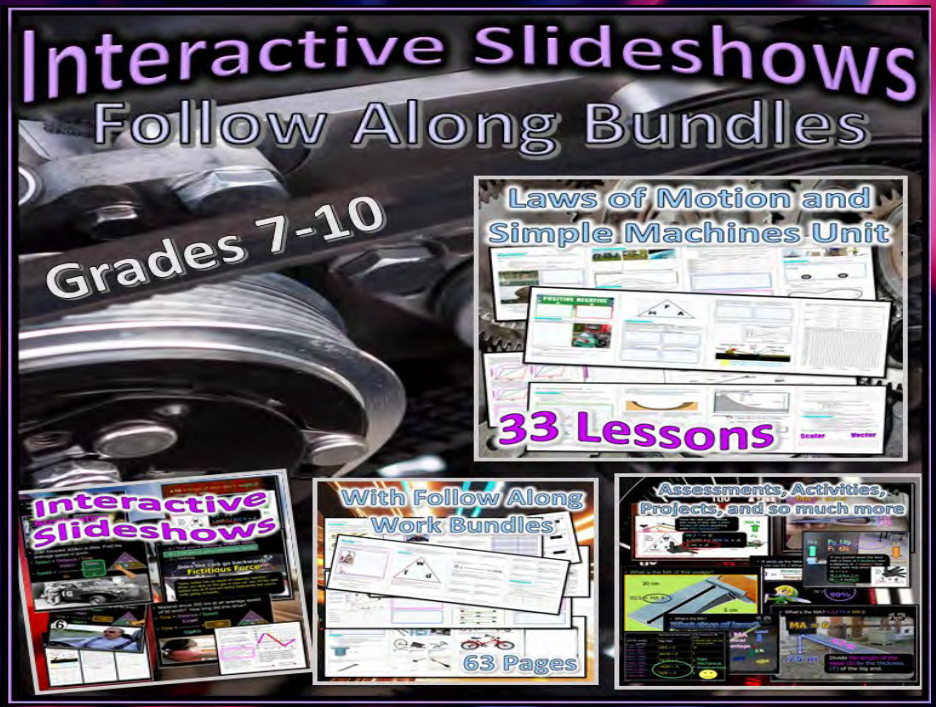
Entire SlideSpark Science Curriculum

Physical Science Curriculum

SlideSpark Science

MIDDLE-LEVEL EDUCATIONAL RESOURCES





Dear Valued Educator,

Our fully editable .pptx and .doc resources are perfect for educators looking to bring enthusiasm and creativity to their lessons. We encourage you to make changes to fit your needs and style. As science educators, we're committed to providing students with the tools they need to succeed in the classroom and beyond. Each unit in the curriculum includes a range of resources that have been developed through extensive research and use in a busy classroom. Our teaching approach is designed to make science education engaging and exciting for learners of all ages. We offer a one-of-a-kind science curriculum that will challenge, inspire, and educate students to become tomorrow's scientists and leaders. Join us today and learn more about how our program can help you achieve your classroom goals.

With appreciation,

Support@SlideSpark.net

Thank you for your time and interest in our Science curriculum. We strive to provide students with engaging and informative lessons that will spark their curiosity and encourage scientific exploration. Should you have any questions or concerns, please do not hesitate to contact us. Thank you again for considering our curriculum, and we wish you all the best in your educational journey.

Sincerely,

Support@slidespark.net

SlideSpark Science

MIDDLE-LEVEL

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