Vocabulary	Student-friendly definition	Context for the experiment
Floodwater	Water that covers land that is normally dry.	Floodwater can soak books, photographs, letters, government records, and other important documents.
Inundation	The covering of normally dry land or objects by water.	The experiment simulates the inundation of paper materials during a flood.
Submersion	Being completely underwater.	Students submerge a book for a set period to simulate severe flood exposure.
Absorption	The process of taking in a substance such as water.	Paper fibers absorb water, causing pages to swell and weaken.
Saturation	The condition in which a material has absorbed as much water as it can hold.	A book left underwater may become completely saturated.
Porosity	The amount of open space in a material that can hold or transmit water.	Paper is porous, which allows water to enter spaces among its fibers.
Capillary action	The movement of water through small spaces, sometimes against gravity.	Even if only the bottom of a document touches water, moisture can move upward through the paper.
Paper fiber	The tiny plant-based fibers, usually cellulose, that form paper.	Water disrupts the connections among paper fibers, changing the strength and shape of a page.
Degradation	The process of a material breaking down or losing quality.	Floodwater can cause physical, chemical, and biological degradation of documents.
Deterioration	A gradual decline in condition or quality.	Students document deterioration by observing changes in texture, color, smell, strength, and readability.
Warping	Bending, twisting, or changing shape because of moisture or other forces.	Pages often warp as wet books dry unevenly.
Delamination	The separation of materials that were originally bonded together in layers.	Covers, photographs, labels, and coated papers may separate after becoming wet.
Contamination	The introduction of unwanted or potentially harmful substances.	Real floodwater may contain mud, sewage, chemicals, oil, microorganisms, and other contaminants. Classroom water is much safer and simpler.
Mold	Fungi that can grow on damp organic materials.	Wet paper provides conditions favorable for mold growth. Students should understand why flooded documents must be dried quickly.
Legibility	How easily writing or printing can be read.	Students compare the legibility of the same sentence before flooding and after drying.

Vocabulary	Student-friendly definition	Context for the experiment
Preservation	Protecting an object or record from damage or further deterioration.	Archivists use preservation techniques to reduce damage before disasters occur.
Conservation	Actions taken to stabilize or repair a damaged historical object.	After a flood, specialists may conserve important books, photographs, maps, or documents.
Salvage	Recovering materials after they have been damaged or threatened.	Students develop a salvage strategy for their flooded book.
Primary source	An original document, object, photograph, or other evidence created during the time being studied.	Birth certificates, letters, newspapers, ledgers, photographs, and property records from 1927 can provide direct evidence about people's lives.
Archive	A collection of records preserved because they have continuing historical, legal, cultural, or personal value.	Floods can damage entire archives, potentially destroying information about communities and individuals.
Ephemera	Everyday materials originally intended for short-term use but that may later become historically valuable.	Tickets, receipts, advertisements, menus, flyers, postcards, and handwritten notes can reveal what everyday life was like.
Metadata	Information that describes a record, such as its creator, date, location, or subject.	A damaged document might survive but become much less useful if its date, creator, or location is lost.
Provenance	The history of where a document or object came from and who created or owned it.	Knowing that a letter belonged to a particular family can completely change how historians interpret it.
Context	The circumstances surrounding an event or source that help us understand its meaning.	A damaged document may contain readable words but still be difficult to interpret if its historical context has been lost.
Evidence	Information used to support a conclusion or explanation.	Students use observations from their experiment as evidence for claims about how flooding damages records.
Observation	Information collected directly using the senses or measuring tools.	“The pages are curled and brown” is an observation; “the book is ruined” is an interpretation.
Qualitative data	Descriptive information rather than numerical measurements.	Color, smell, texture, page condition, and readability are qualitative data students can record.
Quantitative data	Information expressed using numbers or measurements.	Students might record soaking time, drying time, book mass, number of readable words, or number of damaged pages.

Vocabulary	Student-friendly definition	Context for the experiment
Resilience	The ability of a system or community to withstand, adapt to, and recover from disruption.	Protecting records is part of community resilience because records may be needed to document property, identity, history, and recovery after a disaster.
Archival bias	Gaps or imbalances in historical records caused by decisions about whose information was recorded, saved, collected, or preserved.	After a disaster, some records may be saved while others are lost. Students can ask whether flood damage might make existing gaps in the historical record even larger—and whose stories are most likely to disappear.
Documentary record	The collection of written, photographic, audio, digital, and other recorded evidence about people, places, and events.	Letters, newspapers, photographs, property records, maps, and government reports together form part of the documentary record of the 1927 flood. Flood damage can permanently change that record.
Corroboration	Checking information against other independent sources or evidence to see whether they support the same conclusion.	If part of a flooded document becomes unreadable, historians might compare it with newspapers, photographs, maps, government records, or other documents to corroborate what they think it says.
Authenticity	Evidence that an object or record is genuine and is what it claims to be.	Historians and archivists need to determine whether a document is an original historical record, a copy, a later reproduction, or something that has been altered.
Chain of custody	A documented history of who possessed, handled, moved, or cared for an object or record.	When damaged records are recovered after a disaster, documenting where they were found and who handled them helps preserve information about their origin and authenticity.
Disaster mitigation	Actions taken before or during a disaster to reduce damage and loss.	Moving important records above expected flood levels, storing them in protective containers, making emergency plans, and creating digital copies can reduce losses when flooding occurs.

Vocabulary	Student-friendly definition	Context for the experiment
Relative humidity	A measure of how much water vapor is in the air compared with the maximum amount the air could hold at that temperature.	A flooded book can remain damp even after it is removed from water. High relative humidity slows drying and can create conditions favorable for mold and other microbial growth.
Cellulose	The natural plant material that makes up much of the structure of paper.	Most paper contains cellulose fibers derived from plants. Water can weaken the connections among these fibers, while microorganisms and chemical reactions can contribute to their deterioration.
Microbial growth	The growth of microscopic organisms, including fungi and bacteria, under suitable environmental conditions.	Wet paper, warmth, moisture, and organic material can create conditions for microbial growth. Mold is an especially important concern when recovering water-damaged books and documents.
Digital preservation	The long-term protection and management of information in digital form so that it remains accessible in the future.	Scanning a historic document can preserve its information even if the original is later damaged, but digital preservation also requires maintaining files, metadata, backups, and usable file formats over time.

Five especially important distinctions

Students should leave the experiment understanding these pairs:

Absorption → Saturation: Paper first takes up water; eventually it may hold as much water as it can.

Observation → Interpretation: *"The page has a brown stain"* is an observation. *"Floodwater permanently damaged the document"* is an interpretation that needs supporting evidence.

Preservation → Conservation: Preservation tries to **prevent damage**; conservation tries to **stabilize or repair damage**.

Document → Primary Source: An old document becomes historical evidence when we use it to investigate the past.

Physical damage → Information loss: This is probably the most important conceptual connection. A flood doesn't just damage **paper**. It can damage **information**—and information about some people and communities may be impossible to recover.