

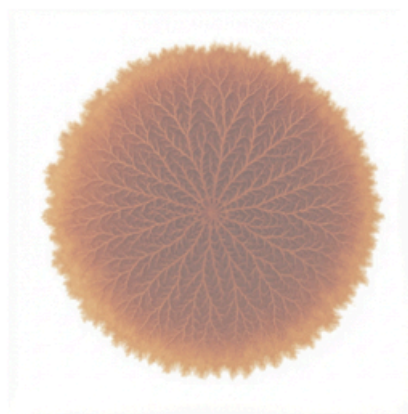
# Reactive Surface Experiments (RSE)

## Classroom Field Kit

A Shared Laboratory

Reactive Surface Experiments — Commons Edition

## Program 5 — Application Method



# Program 5 — Application Method

## *How a Reaction Is Introduced Matters*

### **Purpose of This Program**

This program examines application method as a governing condition in reactive surface experiments. Participants observe how the manner in which a solution is delivered — not its chemistry — alters entry, movement, and pattern.

Brush, mist, cascade, and submersion do not merely distribute material differently. They establish distinct pathways of contact, pressure, and duration that shape reactive behavior from the first moment.

The goal is not to master a technique. The goal is to recognize how technique influences outcome.

### **What This Program Explores**

Participants compare how the same reactive solution behaves when applied using different methods.

#### **Typical comparisons may include:**

- Brush vs mist
- Light vs heavy application
- Continuous vs interrupted delivery
- Point introduction vs field coverage

Chemistry, dilution, surface, and environment are held constant. Only the method of application is allowed to change.

### **Suggested Approach**

Prepare multiple comparable surfaces.

#### **Apply the same solution using different application methods, noting:**

- Initial wetting behavior
- Speed and direction of movement
- Localized pooling or penetration
- Differences in edge definition

Participants are encouraged to avoid correcting technique mid-application. Inconsistencies are part of the record.

### **What to Pay Attention To**

#### **When documenting this program, give particular attention to:**

- Method of application
- Estimated volume delivered
- Application speed and pressure
- Areas where reaction concentrates or disperses

The same solution can behave as many different systems depending on how it is introduced.

### **Why This Program Comes Fifth**

After entry, dilution, time, and atmosphere are understood, application becomes legible as a distinct control. This program clarifies that some differences attributed to chemistry are, in fact, procedural.



Experiment Title: \_\_\_\_\_

### Section A — Experiment Identification

Field	Entry
Program Type	<input type="checkbox"/> Law of Entry <input type="checkbox"/> Dilution <input type="checkbox"/> Time-Series <input type="checkbox"/> Atmosphere <input type="checkbox"/> Application <input type="checkbox"/> Substrate <input type="checkbox"/> Failure <input type="checkbox"/> Edge <input type="checkbox"/> Repeatability <input type="checkbox"/> Open
Date	_____
Contributor / Class Code	_____

Small type note: Not all fields are required. Record what is known.

### Section B — Reactive Chemistry

Field	Entry
Reactive Substance (chemical name)	_____
Solution Type	<input type="checkbox"/> Aqueous <input type="checkbox"/> Other
Dilution / Concentration	_____

### Section C — Substrate & Surface Condition

Field	Entry
Substrate Type	<input type="checkbox"/> RSE Paper <input type="checkbox"/> Other
Paper Batch / Source (if known)	_____
Surface Condition	<input type="checkbox"/> Dry <input type="checkbox"/> Pre-wet <input type="checkbox"/> Other
Surface Preparation Notes	_____

### Section D — Application & Entry Method

Field	Entry
Method of Application	<input type="checkbox"/> Brush <input type="checkbox"/> Mist <input type="checkbox"/> Cascade <input type="checkbox"/> Submersion <input type="checkbox"/> Other
Estimated Volume	<input type="checkbox"/> Drops <input type="checkbox"/> mL <input type="checkbox"/> Light <input type="checkbox"/> Heavy
Application Speed / Notes	_____

Reactive Patinas™ — RSE Program

*Not everything needs to be explained. Some things only need to be observed — together.*



### Section E — Environment

Field	Entry
Ambient Temperature	_____ °C / °F
Ambient Humidity	_____ % / <input type="checkbox"/> Low <input type="checkbox"/> Med <input type="checkbox"/> High
Drying Condition	<input type="checkbox"/> Open Air <input type="checkbox"/> Boxed <input type="checkbox"/> Covered <input type="checkbox"/> Forced

*Entry determines reaction. Everything above describes what was allowed to enter.*

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## OBSERVATION & INTERPRETATION

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(What happened, when, and how it was perceived)

This page privileges **language and attention**, not correctness.

### Section F — Time & Change

Field	Entry
Time to First Visible Change	<input type="checkbox"/> Seconds <input type="checkbox"/> Minutes <input type="checkbox"/> Hours <input type="checkbox"/> Unknown
Total Observation Duration	_____

### Section G — Visual Outcome (Descriptive, Not Evaluative)

Color Description (words, not codes):

#### Pattern / Behavior Observed:

- Bloom
- Migration
- Edge Darkening
- Collapse
- Uniform
- Other: \_\_\_\_\_

Uniformity:

- Even  Uneven  Localized

### Section H — Unexpected or Partial Outcomes

No

Yes → Describe:

<p><i>Unexpected results are valid data.</i></p>
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**Section I — Images (Uploaded Separately)**

Field	Entry
Image Type	<input type="checkbox"/> Still <input type="checkbox"/> Time Series
Image Timing	<input type="checkbox"/> Immediate <input type="checkbox"/> Delayed <input type="checkbox"/> Multiple
Notes on Images	_____

**Section J — Confidence & Uncertainty**

Field	Entry
Confidence in Recorded Data	<input type="checkbox"/> High <input type="checkbox"/> Moderate <input type="checkbox"/> Low
Known Unknowns / Estimates	_____

**Section K — Open Notes & Questions**