twig SCIENCE

Core Curriculum

# A Day in the Life

## Teaching with Twig Science in a Limited Screen Time Classroom

A look at how instruction flows when students have little or no access to individual devices.

**KEY TAKEAWAY**

Limited student device access doesn't change the science learning goals or outcomes of Twig Science.

Teachers can maintain the program's problem-based, discussion-rich approach while adapting how students access and engage with digital components.

**Grades K-5**

| Lesson Phase | What the Teacher Does | What Students Do |
|---|---|---|
| **Spark** | Kicks off the lesson by showing a phenomenon, activating prior knowledge, or setting context for the day's investigation. Conducts a live demonstration of a phenomenon, guides students through short readings, or presents an image or short video on the class screen from the teacher's own device. | Watch, listen, read, as a whole class; discuss what they notice and wonder aloud. No personal device is needed. |
| **Investigate** | Leads a sensemaking activity to help students develop an understanding of science concepts through application of science and engineering practices. This may involve hands-on activities, reading for evidence, or using a digital interactive to investigate a phenomenon or design and test a solution to a problem. Digital interactives are operated by the teacher on the shared class screen. | Conduct hands-on investigation with physical materials, recording observations, developing models, and collecting data in their Twig Books. For any digital interactives, students watch the shared screen and co-navigate with the teacher to explore phenomena, test ideas, and answer their questions. |
| **Report** | Guides students to clarify or summarize – verbally or in writing -- what they have learned through their investigation in that lesson. Leads students in language routines and supports them in articulating their observations and changes in their ideas. | Shares findings verbally and/or in writing (in their Twig books) with the teacher and other students, including through engagement with language routines. |
| **Connect** | Facilitates a short activity in which students connect their learning and practices from the current lesson to other science ideas, crosscutting concepts, or practices they have already engaged with. This may include showing students a short video or leading a discussion. | Discuss their learnings and watch short videos that prompt them to connect those learnings to prior knowledge, the driving question, or the module's core narrative or phenomenon. |
| **Reflect** | Guides students to share their learning and complete the Reflect prompt in their Twig Books. Use information from the Reflect activity and students' responses to formatively assess their progress and inform future instruction. | Respond to a question in writing in the Twig Book to demonstrate their understanding of the lesson content. |
| **Assessment & Reporting** | Administers the print version of the multiple-choice or benchmark assessment. Scores the print assessment and enters results into the gradebooks. | Complete the assessment using paper and pencil. |

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**Grades 6-8**

| Lesson Phase | What the Teacher Does | What Students Do |
| --- | --- | --- |
| **Introduction** | Kicks off the session by showing a phenomenon, activating prior knowledge, or setting context for the day's investigation. Phenomena may be conveyed by video (shown on a class screen from the teacher's device), printed materials, or live demonstrations. | Watch, listen, and/or read as a whole class; discuss and record in their Twig Journals or collectively in a shared space what they notice and wonder, and/or what they already know about the science concept or phenomenon being studied. No personal device is needed. |
| **Investigation** | Facilitates a sensemaking activity to help students develop an understanding of science phenomena or engineering challenges through application and crosscutting concepts. The investigation may involve hands-on activities, reading for evidence, or using a digital interactive to investigate a phenomenon or design and test a solution to a problem. During one or two key points in a module, digital interactives are used to immerse students in the module's narrative and explore ideas or test designs that would be impossible in a classroom setting. Digital interactives are operated by the teacher on the shared class screen. | Conduct the hands-on investigation with physical materials, recording observations, developing models, and collecting data in their Twig Books. For any digital interactives, students watch the shared screen and co-navigate with the teacher to explore phenomena, test ideas, and answer their questions. |
| **Wrap-Up** | Guides students to complete a reflection activity, either verbally or in writing, including in the Twig Journal or in the form of a Phenomena Tracker. Teachers use these reflections as formative assessments to inform future instruction and gauge students' progress in making sense of phenomena, understanding science concepts, and using science and engineering practices. | Engage in reflection by responding to prompts in exit tickets or the Twig Journal and reflecting on changes in their ideas about scientific phenomena. |
| **Assessment & Reporting** | Administers the print version of the multiple-choice or benchmark assessment. Scores the print assessment and enters results into the gradebooks. | Complete the assessment using paper and pencil. |