



ADMINISTRATORS'  
**TOOL**  
**#8**

# OBSERVING CLASSROOM PRACTICE

## FOSS NEXT GENERATION IMPLEMENTATION

**In science, students collect data and analyze those data to make sense of the experience.** In a similar manner, FOSS recommends that schools collect data about science instruction on a regular basis and analyze them to determine next steps to further professional learning. Many schools have protocols for making classroom observations, but those are likely not specific to science. FOSS has developed a classroom observation tool that can be adapted to fit each school's need. The tool has several sections and it is recommended that administrators only use those relevant to the goals or expectations agreed upon as areas of focus. When getting started, we recommend working with just the first two pages as they address critical components of the program—classroom culture and active investigation. A school might focus their entire first year on those sections to ensure a solid foundation.

**The remaining sections** of the observation tool are meant for evaluating more advanced elements of instructional practice. It is important to note, depending on the lesson and when the class is observed, that you might see only a portion of the practice elements listed in the observation tool. Additionally, the “code” is not specifically defined so you will need to determine what you will use as criteria for measuring levels of progress. Finally, we recommend that teachers use the observation tool as a self-assessment tool for reflecting on their own practice and promoting a culture of continuous improvement. Teachers could collaborate to write specific descriptors for each observation category. This supports a growth mindset for teachers and makes the observation tool more relevant for each school.

**As you observe** science in the classroom, it is typical to see a range of comfort and expertise—some teachers will be successful with their first module while others might need more support. The observation tool can serve as a way to measure this and identify areas of future emphasis towards your school goals. We also recommend making observations during science time to identify areas of success and areas in need of support.

1. Managing Materials
2. Using FOSS Technology
3. Creating a Culture for Science
4. Supporting Teachers with Time
6. Supporting Teachers with Access and Equity
7. Using the FOSS Assessment System
- 8. OBSERVING CLASSROOM PRACTICE**
9. Making Community Connections
10. Getting More Information

Observation Guide for beginning FOSS K-5

Observer: \_\_\_\_\_ Grade Level: \_\_\_\_\_ Date: \_\_\_\_\_  
 Teacher: \_\_\_\_\_ # of Students: \_\_\_\_\_

FOSS Module: \_\_\_\_\_ Observation Time: \_\_\_\_\_

Goals: (if stated)

1. **Physical Environment**  
 Is the classroom organized in a way that provides access for all students to engage in the hands-on and sense-making activities they are part of?  

| Code  | What to look for  |
|-------|---|
| _____ | Science materials station   |
| _____ | Materials accessible to all students                                |
| _____ | Tables organized for collaborative groups                           |
| _____ | Classroom norms posted on wall                                      |
| _____ | Class notebooks   |
| _____ | Every student has a notebook and access to a Science Resources book |
| _____ | Science Word Wall (paper or pocket chart)                           |
| _____ | Safety and Outdoor Poster on wall                                   |
| _____ | Set-up for FOSSweb access   |
2. **Establishing**  
 Does the teacher routinely take on student interest they are part of?  

| Code  | What to look for |
|-------|------------------|
| _____ | Teacher          |
| _____ | Class            |
| _____ | Teacher          |
| _____ | Class            |
| _____ | Teacher          |
| _____ | Class            |
| _____ | Teacher          |
| _____ | Class            |
| _____ | Teacher          |
| _____ | Class            |
3. **Content**  
 What to look for  

| Code  | What to look for   |
|-------|--|
| _____ | Teacher asks guiding questions, and/or introduces the phenomenon or design challenge           |
| _____ | Teacher/Student poses the focus question   |
| _____ | Teacher prepares or guides the creation of a plan/procedure or students develop their own plan |
| _____ | Students ask relevant questions  |
- 3b. **Activity**  

| Code  | What to look for |
|-------|------------------|
| _____ | Hands-on         |
| _____ | Active           |
| _____ | All or some      |
| _____ | Two or three     |
| _____ | Small            |
| _____ | Large            |
| _____ | Center           |
| _____ | Whole            |
| _____ | Class            |
- 3c. **Data Management**  
 What to look for  

| Code  | What to look for   |
|-------|--|
| _____ | Students record responsibility on their notebooks (Teacher provides scaffolds as needed) |
| _____ | Students record their observations (text, drawings, diagrams, sketches, etc.)            |
| _____ | Teacher asks formal science vocabulary to students (uses or describes) the concepts      |
- 3d. **Analysis**  

| Code  | What to look for |
|-------|------------------|
| _____ | Students         |
| _____ | Teacher          |
| _____ | Class            |
| _____ | Teacher          |
| _____ | Class            |
| _____ | Teacher          |
| _____ | Class            |
| _____ | Teacher          |
| _____ | Class            |
4. **Integrating Science Notebooks**  
 Is the teacher supporting students use of science notebooks throughout the investigation?  

| Code  | What to look for   |
|-------|--|
| _____ | Teacher and students use a class notebook                      |
| _____ | Students maintain a notebook appropriate for their grade level |
| _____ | Teacher provides feedback on student notebooks                 |
| _____ | Students represent their own understanding in their notebooks  |
5. **Engaging Development**  
 Is the teacher using formative assessment techniques to continuously check for student understanding throughout the investigation?  

| Code  | What to look for   |
|-------|--|
| _____ | Teacher uses exit slips and passes when appropriate to ask questions                 |
| _____ | Teacher uses FOSSweb activities as indicated in the investigation guide              |
| _____ | Students complete i-Checks online  |
| _____ | Teacher uses verbal investigations and tutorials for specific students based on data |
6. **Sense-Making Discussions for Three-Dimensional Learning**  
 Is the teacher facilitating sense-making discussions? (Also see Analysis section above)  

| Code  | What to look for   |
|-------|--|
| _____ | Students are physically arranged to share and listen to each other |
| _____ | Students understand and use the terms for discussion               |
| _____ | Students speak and listen to each other when analyzing data        |
| _____ | Teacher asks questions to further student understanding            |
7. **Using Formative Assessment**  
 Is the teacher using formative assessment techniques to continuously check for student understanding throughout the investigation?  

| Code  | What to look for   |
|-------|--|
| _____ | Teacher uses exit slips and passes when appropriate to ask questions                 |
| _____ | Teacher uses FOSSweb activities as indicated in the investigation guide              |
| _____ | Students complete i-Checks online  |
| _____ | Teacher uses verbal investigations and tutorials for specific students based on data |
8. **Using FOSSweb and Technology**  
 Is the teacher using technology to engage and assess (grades 3-5) students?  

| Code  | What to look for   |
|-------|--|
| _____ | Teacher uses videos and games when appropriate to ask questions                      |
| _____ | Teacher uses FOSSweb activities as indicated in the investigation guide              |
| _____ | Students complete i-Checks online  |
| _____ | Teacher uses verbal investigations and tutorials for specific students based on data |
9. **Talking FOSS Outdoors**  
 Is the teacher conducting outdoor learning experiences with students?  

| Code  | What to look for   |
|-------|--|
| _____ | Teacher provides directions and set expectations for the outdoor experiences |
| _____ | Students bring science notebooks or other appropriate materials              |
| _____ | Teacher addresses students as co-discoverers                                 |
| _____ | Students discuss data collected outdoors                                     |

Notes: \_\_\_\_\_

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THE LAWRENCE HALL OF SCIENCE  
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Delta Education

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