**Kaleidoscope Lesson**

| **Standard** | **Standard Number (s)** | **Activity** |
| --- | --- | --- |
| **Common Core Standard for Mathematical Practice** | 2, 3, 5 and 7 | Use compass (tool)  Discover formula and check  Explain / share explanation |
| **International Technology Education Association Standards for Technological Literacy** | 3, 7, 11 | Extension – build a kaleidoscope  Reading about construction of same |
| **Common Core Reading Standards for Literacy in Science and Technical Subjects** | 3, 9 | Lab – reading a procedure  Compare information in articles to experiment |
| **Common Core Writing Standards for Literacy in History/ Social Studies, Science and Technical Subjects** | 1, 7(?) | Lab summary  Additional writing after reading? |
| **Maryland Science Skills and Processes Standards** | 1.A, 1.B, 1.C | Lab  Explanation |
| **Content Standard** | Science: 6.D.3 | Activity and reading - |

**5E Model – Kaleidoscope**

| **5E Lesson Components** | **Description of Activity** |
| --- | --- |
| **Engagement**  The activities in this section capture the participants’ attention, stimulate their thinking, and help them access prior knowledge. | Examine toy kaleidoscope – discuss how it works |
| **Exploration**  In this section, participants are given time to think, plan, investigate, and organize collected information. | How Many Images Activity |
| **Explanation**  Participants are now involved in an analysis of their exploration. Their understanding is clarified and modified because of reflective activities. | Lab summary  Reading passage  Add to summary |
| **Extension**  This section gives participants the opportunity to expand and solidify their understanding of the concept and/or apply it to a real world situation. | Reading passage  Construct a kaleidoscope |
| **Evaluation**  Evaluation occurs throughout the lesson. Scoring tools developed by teachers and participants target what participants must know and do. Consistent use of scoring tools improves learning. | Summary |