# Handout: Processing the Changes in Science

| **Shifts in Teaching and Learning** | **Opportunities** | **Challenges** |
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| Science shift toward learning for all students.  [Reading—*STEM Teaching Tool 15: Equity Overview*]. | Example – Developing lessons to explicitly counter gender stereotypes in the sciences. | Example – Providing equitable access to field-based experiences (such as field trips to zoos, science museums, or nature centers) or equipment (such as devices and apps for virtual dissection) to all students may have financial and logistical barriers. |
| Science shift toward an emphasis on learning progressions  [Reading—TBD] |  |  |
| Science shift toward inquiry processes.  [Reading—*Inquiry]* |  |  |
| Science shift toward inclusion of engineering in science instruction  [Reading—*STEM Teaching Tool 7: Engineering Design*]. |  |  |
| Science shift toward the integration of inquiry and engineering design with content  [Reading—*STEM Teaching Tool 19: Planning and Conducting Investigations]* |  |  |
| Science shift toward the integration of literacy  [Reading—*Literacy in Science*] |  |  |