

Plant Growth and Development: Goals and Assessment Strategies

Concepts	
Goals	Assessment Strategies
<p>Many plants follow a life cycle that begins with growth from a seed and proceeds through the production of seeds. Lessons 1, 3–7, 12, and 15–17</p>	<p>Lessons 1, 6–7, 12, 15–17, and Additional Assessment 1</p> <ul style="list-style-type: none"> ▪ Pre- and post-unit assessments ▪ Small group and class discussions ▪ Teacher observations ▪ Record sheets ▪ Student notebook entries
<p>Plants have distinct stages in their life cycle. Lessons 1, 3–7, 10–12, and 15–17</p>	<p>Lessons 1, 4, 6, 10, 12, 15, 17, and Additional Assessment 1</p> <ul style="list-style-type: none"> ▪ Pre- and post-unit assessments ▪ Small group and class discussions ▪ Teacher observations ▪ Record sheets ▪ Student notebook entries ▪ Student graphs ▪ Student drawings
<p>To live and grow, plants need light, water, and nutrients from the soil. Lessons 1–7, 10–12, and 16–17</p>	<p>Lessons 1, 6, 10, 12, and 16–17</p> <ul style="list-style-type: none"> ▪ Pre- and post-unit assessments ▪ Small group and class discussions ▪ Teacher observations ▪ Record sheets ▪ Student notebook entries ▪ Student graphs
<p>Flowering plants must be pollinated in order to produce seeds. Lessons 8, 10–12, 14, and 16</p>	<p>Lessons 8, 12, 14, and 16</p> <ul style="list-style-type: none"> ▪ Pre- and post-unit assessments ▪ Small group and class discussions ▪ Teacher observations ▪ Student notebook entries ▪ Student dramatization
<p>Many plants are pollinated by bees. Lessons 1, 8–11, 13–14, and 17</p>	<p>Lessons 1, 9–11, 14, and 17</p> <ul style="list-style-type: none"> ▪ Pre- and post-unit assessments ▪ Small group and class discussions ▪ Teacher observations ▪ Record sheets ▪ Student notebook entries ▪ Student drawings ▪ Student dramatization
<p>A flower’s pollen sticks to a bee, but some rubs off when the bee feeds at other flowers. Lessons 9, 11, and 14</p>	<p>Lessons 11 and 14</p> <ul style="list-style-type: none"> ▪ Pre- and post-unit assessments ▪ Small group and class discussions ▪ Teacher observations ▪ Student dramatization
<p>One seed produces one plant; one plant can produce many seeds. Lessons 3–5, 12, and 15–16</p>	<p>Lessons 3, 12, and 15–16</p> <ul style="list-style-type: none"> ▪ Small group and class discussions ▪ Teacher observations ▪ Record sheets ▪ Student notebook entries

Skills	
Goals	Assessment Strategies
Planting and caring for <i>Brassica rapa</i> . Lessons 1, 3–12, and 16–17	Lessons 1, 3, 5, 11, and 16–17 <ul style="list-style-type: none"> ▪ Pre- and post-unit assessments ▪ Small group and class discussions ▪ Teacher observations ▪ Student notebook entries
Observing, describing, and recording changes in plants. Lessons 1–7, 9–13, and 15–17	Lessons 1, 7, 12, and 16–17 <ul style="list-style-type: none"> ▪ Pre- and post-unit assessments ▪ Small group and class discussions ▪ Teacher observations ▪ Record sheets ▪ Student notebook entries ▪ Student drawings
Comparing and discussing changes occurring in plants over time. Lessons 1–17	Lessons 1–17 <ul style="list-style-type: none"> ▪ Pre- and post-unit assessments ▪ Small group and class discussions ▪ Teacher observations ▪ Record sheets ▪ Student notebook entries ▪ Student graphs
Measuring and recording the growth of plants. Lessons 3–12 and 15–16	Lessons 5 and 7 <ul style="list-style-type: none"> ▪ Pre- and post-unit assessments ▪ Small group and class discussions ▪ Teacher observations ▪ Record sheets ▪ Student notebook entries ▪ Student graphs
Using graphs to display and compare growth patterns. Lessons 5–7, 12, and 15	Lessons 5, 7, 12, and 15 <ul style="list-style-type: none"> ▪ Pre- and post-unit assessments ▪ Class discussions ▪ Teacher observations ▪ Record sheets ▪ Student notebook entries ▪ Student graphs
Predicting future growth from observations and measurements. Lessons 1, 3, 5–7, 9, 11–12, and 16–17	Lessons 1, 7, 12, and 16–17 <ul style="list-style-type: none"> ▪ Pre- and post-unit assessments ▪ Class discussions ▪ Teacher observations ▪ Record sheets ▪ Student notebook entries
Reading to learn more about plants. Lessons 3, 6, and 10–11	Lessons 6 and 10 <ul style="list-style-type: none"> ▪ Small group and class discussions ▪ Teacher observations ▪ Student graphs

Goals	Assessment Strategies
<p>Communicating results and reflecting on experiences through writing, drawing, and discussion. Lessons 1–12 and 15–17</p>	<p>Lessons 1–12 and 15–17</p> <ul style="list-style-type: none"> ▪ Pre- and post-unit assessments ▪ Small group and class discussions ▪ Teacher observations ▪ Record sheets ▪ Student notebook entries ▪ Student drawings

Attitudes	
Goals	Assessment Strategies
<p>Developing interest in studying the life cycle of plants. Lessons 1–17</p>	<p>Lessons 1–17</p> <ul style="list-style-type: none"> ▪ Pre- and post-unit assessments ▪ Small group and class discussions ▪ Teacher observations ▪ Student notebook entries ▪ Student drawings ▪ Student dramatization
<p>Developing sensitivity to the needs of plants. Lessons 1–10, 17</p>	<p>Lessons 1–17</p> <ul style="list-style-type: none"> ▪ Pre- and post-unit assessments ▪ Small group and class discussions ▪ Teacher observations ▪ Student notebook entries ▪ Student drawings ▪ Student dramatization
<p>Developing an awareness of the interaction between plants and animals. Lessons 8–16</p>	<p>Lessons 8–16</p> <ul style="list-style-type: none"> ▪ Pre- and post-unit assessments ▪ Small group and class discussions ▪ Teacher observations ▪ Student notebook entries ▪ Student drawings ▪ Student dramatization