

Supporting Concept Development: ***Deep Learning***

WHAT'S IN THIS PD2GO PACK?

Discover how to plan ongoing learning experiences focused on a concept. Children experience deep learning when adults offer them a variety of opportunities to explore a concept. This pack helps teachers/providers learn how to plan multiple, related learning experiences that support children's concept development.

Your Participants Will...

increase their capacity to plan multiple learning opportunities to scaffold children's understanding of a concept.



SUPPORTING MATERIALS

Facilitator's Guide Everything you need to facilitate this PD2GO presentation on *Deep Learning*, including an interactive presentation page along with step-by-step presenter's notes.

Coaching Corner One-page resource with self-reflection and practice opportunities that can be explored individually, with peers, and in professional development sessions.

Additional resource materials related to this pack provide opportunities to explore and expand your skills and knowledge through **Digging Deeper**, **Resource Links**, and **Family Connections**.

HOW TO USE THIS FACILITATOR'S GUIDE

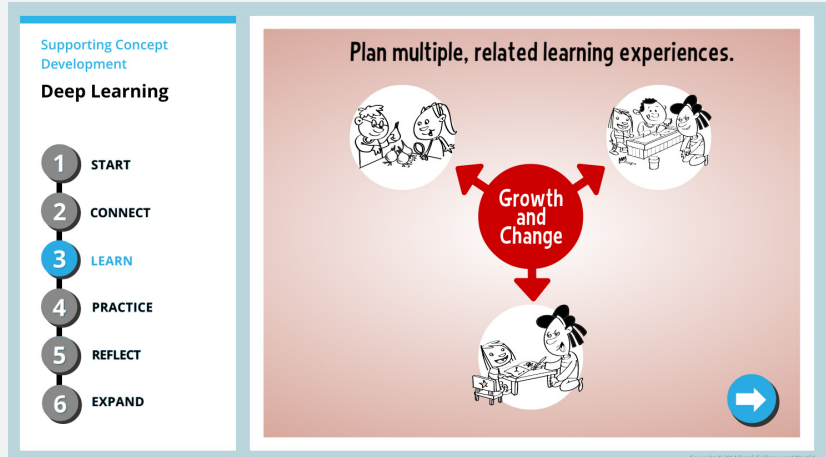
This Facilitator's Guide will provide you with step-by-step information on how to present this session using the interactive presentation page and downloadable materials specific to this PD2GO pack. We recommend [opening the pack presentation](#) as you go through this Facilitator's Guide.

THE INTERACTIVE PRESENTATION PAGE

The presentation page includes the following elements:

■ Steps

Click on each number icon to begin the section of the presentation—use the presenter's notes in this guide to facilitate each step of the presentation.



DOWNLOADABLE MATERIALS

■ In This Pack

Click on the downloadable materials hyperlink to access all materials related to this presentation.

■ In This Bundle

Click on the downloadable materials hyperlink to access all additional resources and materials that can be used with this presentation and other related packs.






EXPANDING ON THIS PD2GO PACK

This presentation on *Deep Learning* can be used individually or in conjunction with related packs in the bundle, including *Designing Learning Environments*, *Extending Exploration*, and *Integrated Learning*. Additional resources and materials in this bundle (*Digging Deeper*, *Resource Links*, and *Family Connections*) are designed to extend skills and knowledge around these related packs, provide links to resources, and promote partnerships with families.

MATERIALS

In this pack, you will find:

[Download all \(5.2 MB\)](#)

-  [Facilitator's Guide \(4.4 MB\)](#)
 Everything you need to facilitate this PD2GO presentation on Deep Learning, including an interactive presentation page along with step-by-step presenter's notes.
-  [Coaching Corner \(160 KB\)](#)
 One-page resource with self-reflection and practice opportunities that can be explored individually, with peers, and in professional development sessions.
-  [Infographic Poster \(900 KB\)](#)
 Share this resource with participants to hang in their programs as a reminder of how to plan deep learning experiences.
-  [Handout: Planning in Your Program \(160 KB\)](#)
-  [Handout: Web of Learning Experiences \(200 KB\)](#)

In this bundle, you will find:

[Download all \(270 KB\)](#)

Additional resource materials related to this pack provide opportunities to explore and expand your skills and knowledge. The resources include:


-  [Digging Deeper \(160 KB\)](#)
-  [Family Connections \(210 KB\)](#)
-  [Resource Links \(150 KB\)](#)

**STEP 1:
START**



PRESENTATION SEQUENCE

FACILITATOR'S NOTES

Step 1



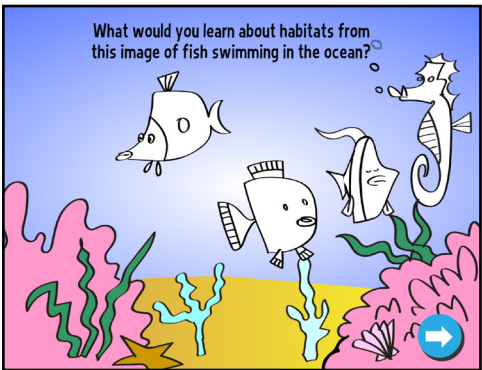

Consider the habitat of these fish.

[2 min]  **Step 1 - Start**

Facilitator: *Consider the habitat of these fish.*

What would you learn about habitats from this image of fish swimming in the ocean?



Facilitator: *If you didn't know anything about habitats, what would you learn about habitats from this image of fish swimming in the ocean?*

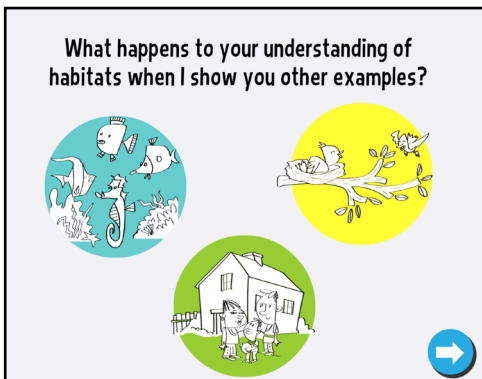

Pause for responses such as the following:

- Habitats have sand, water, and coral.
- Fish live in habitats with water.
- Fish swim in this habitat.

Facilitator: *If I just introduced you to this single habitat, you might think all habitats are water environments. What happens to your understanding of habitats when I show you other examples?*






What happens to your understanding of habitats when I show you other examples?




Pause for responses like the following:

- Multiple examples deepen our understanding of habitats.
- We gain a broader sense of the purpose of habitats; they provide homes for living things.
- We learn about the characteristics of different habitats.

STEP 1: *Continued*
START

PRESENTATION SEQUENCE	FACILITATOR'S NOTES
<div style="border: 2px solid red; padding: 10px; text-align: center;">  <p>Multiple, related experiences support children's deep learning.</p>  <div style="background-color: #4a7ebb; color: white; padding: 5px; display: inline-block; border-radius: 15px;">Go to step 2: CONNECT</div> </div>	<p>Facilitator: <i>Examples of different habitats expand our thinking about the concept of a habitat. We think more broadly about what they are, and we make connections between different types of habitats. Habitats may look very different, but they all serve the same purpose.</i></p> <p><i>As adults, you already know about habitats, but young children are likely just starting to gain an understanding of this concept.</i></p> <p><i>Multiple opportunities to learn about a concept helps children understand similarities and differences and explore complex characteristics of the concept. Helping children think and learn about different aspects of a concept is called deep learning.</i></p> <div style="text-align: center; margin: 10px 0;">  </div> <p>Facilitator: <i>Multiple, related experiences support children's deep learning.</i></p>

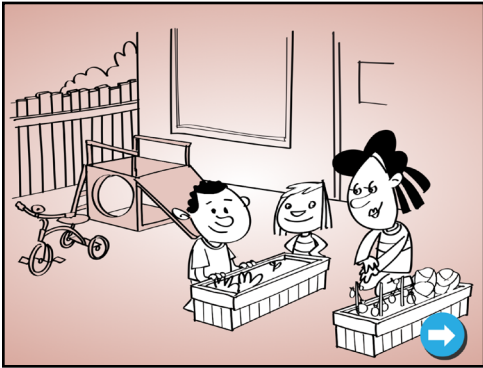
STEP 2:
CONNECT

PRESENTATION SEQUENCE	FACILITATOR'S NOTES
<div style="border: 2px solid green; padding: 10px; text-align: center;"> <p>Step 2</p>  <p>Let's peek into Keisha's family child care program where children are curious about a tiny sprout.</p>  <div style="background-color: #4a7ebb; color: white; padding: 5px; display: inline-block; border-radius: 15px; margin-top: 10px;">➔</div> </div>	<p>[3 min]  Step 2 - Connect</p> <p>Facilitator: <i>Let's peek into Keisha's family child care program where children are curious about a tiny sprout.</i></p>

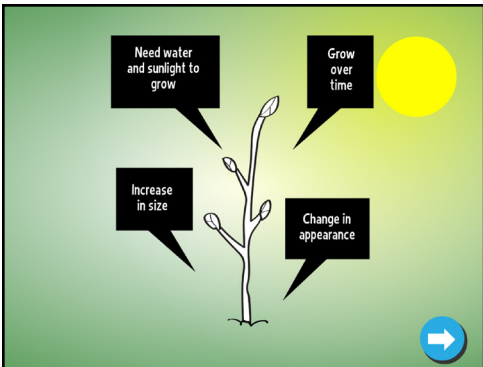
STEP 2:
CONNECT *Continued*

PRESENTATION SEQUENCE

FACILITATOR'S NOTES

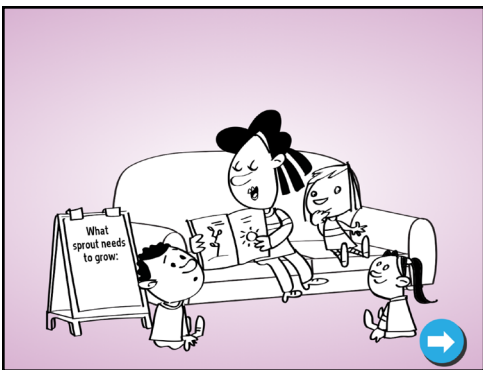


Facilitator: *DeMarius observes, "Look! It's growing."
Keisha asks, "What kind of plant might this be?"
Juana guesses, "A flower."
DeMarius responds, "Or a tomato."
Building on the children's interest in the sprout, Keisha helps them focus their exploration on the concept of growth. While aspects of growth may seem obvious to adults, children can be fascinated with this rich concept.*



Facilitator: *For example, children can investigate how plants*

- *Change in appearance*
- *Increase in size*
- *Need water and sunlight to grow*
- *Grow over time*



Facilitator: *The next morning, Keisha reminds the children of the sprout they found in the yard and reads Eric Carle's storybook, The Tiny Seed. She asks them what the sprout will need to keep growing and records their responses on a poster.*




Keisha would like to plan activities, both indoors and outdoors, that deepen learning about the growth of plants.



Facilitator: *Pair up with a partner and discuss:*

- *What are some other learning experiences about the growth of plants that Keisha might plan over the next several weeks?*

STEP 2:
CONNECT *Continued*

PRESENTATION SEQUENCE	FACILITATOR'S NOTES
<div style="border: 1px solid red; padding: 10px; text-align: center;">  <p>Children develop an understanding of the concept of growth.</p>  <p style="background-color: #4a7ebb; color: white; padding: 2px 5px; border-radius: 5px; display: inline-block;">Go to step 3: LEARN</p> </div>	<p>Give participants time to discuss and ask for a few volunteers to share their ideas. Probe participants' thinking by asking,</p> <p>Facilitator: <i>How does this activity you planned relate to the growth and change of plants?</i></p> <p>If participants need support thinking of learning experiences, here are some ideas:</p> <ul style="list-style-type: none"> ■ Setting up an art and writing table outdoors for children to record their observations and predictions about the plant ■ Asking children to make predictions during circle time such as, "What will the plant look like?" or "How will the sprout change in size as it grows?" ■ Providing opportunities for exploration of a variety of seeds and bulbs ■ Planting seeds, taking care of plants, and observing growth ■ Suggesting to children to use their bodies to physically act out how a plant grows from a seed into a flower ■ Singing a song about growing <p>Facilitator: <i>As you have all shared, there are lots of ideas for learning experiences about the growth and change of plants.</i></p> <div style="border: 1px solid gray; border-radius: 10px; padding: 2px 5px; display: inline-block;">CLICK </div> <p>Facilitator: <i>Through their investigation of the sprout and other plants, children develop an understanding of the concept of growth.</i></p>




STEP 3:
LEARN

PRESENTATION SEQUENCE

FACILITATOR'S NOTES

Step 3

Children need multiple, varied opportunities to explore the same concept over time to experience deep learning.

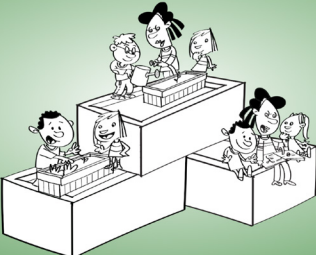

[2 min]



Step 3 - Learn

Facilitator: *Children need multiple, varied opportunities to explore the same concept over time to experience deep learning. Three key ingredients help children reach a deep understanding:*

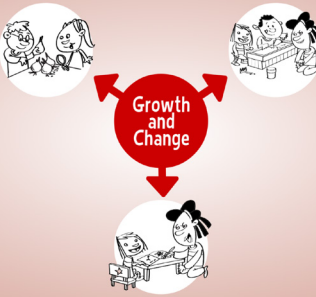

Build on what children already know.


Facilitator: ***Build on what children already know*** to make learning easier and more meaningful. Help children make connections between what they already know and what they are learning.

- For example, early experiences of observing the sprout and reading the book provided the foundation for children to care for the growing plants. Keisha could even make connections to children's knowledge of plants from gardens at home or in local parks.

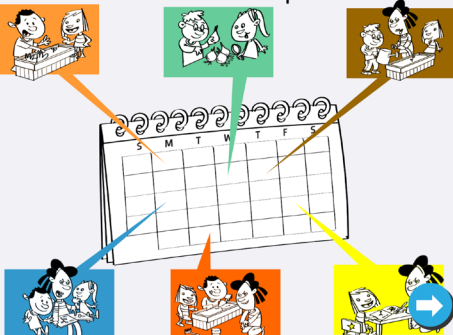

Plan multiple, related learning experiences.


Facilitator: ***Plan multiple, related learning experiences*** to explore the different aspects of a concept.

- For example, Keisha may introduce a variety of bulbs and seeds, help children plant different seeds in the garden, and write down children's descriptions of their plant observation drawings—all of which are related to the concept of growth and change.

Provide children with ample time.







Provide children with ample time to explore and understand a concept.








- For example, Keisha's group investigated the growth and change of plants over several weeks.



STEP 3:
LEARN *Continued*

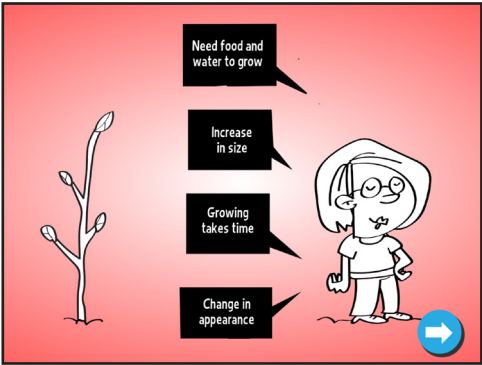
PRESENTATION SEQUENCE	FACILITATOR'S NOTES
<div style="border: 1px solid red; padding: 10px; text-align: center;">  <p>Extended investigation of a concept can occur over many weeks and months.</p>  <p style="background-color: #4a7ebb; color: white; padding: 2px 5px; border-radius: 5px; display: inline-block;">Go to step 4: PRACTICE</p> </div>	<p>Facilitator: <i>Extended investigation of a concept can occur over many weeks and months.</i></p>

STEP 4:
PRACTICE

PRESENTATION SEQUENCE	FACILITATOR'S NOTES
<div style="border: 1px solid green; padding: 10px; margin-bottom: 10px;"> <p>Step ✔</p>  <p>Let's explore how Keisha continues to build on the learning experiences with plants.</p>  <p style="text-align: right;"></p> </div> <div style="background-color: #4a7ebb; color: white; padding: 10px;">  <p style="font-size: small; color: white;">Where else have I observed children's interest in growth?</p> <p style="text-align: right;"></p> </div>	<p>[3 min] CLICK  Step 4 - Practice</p> <p>Facilitator: <i>Let's explore how Keisha continues to build on the learning experiences with plants.</i></p> <p style="margin-top: 20px;">CLICK </p> <p>Facilitator: <i>She thinks, "Where else have I observed children's interest in growth that I can use to deepen their understanding of this concept?" Juana's mother is pregnant, and some children have been interested in the baby growing in her belly. Other children also have younger siblings and babies in their families. Keisha has observed children talking about babies and big kids.</i></p> <p><i>Keisha decides to plan learning opportunities around the growth and change of people.</i></p>

STEP 4:
PRACTICE *Continued*

PRESENTATION SEQUENCE	FACILITATOR'S NOTES
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Facilitator: *Just like she did with the plants, Keisha helped break this concept down into several ideas related to growth that children could explore and learn.*

- *People change in appearance as they grow.*
- *Growing takes time.*
- *People increase in size.*
- *People need food and water to grow.*

By extending the learning experiences to the topic of people, Keisha scaffolds children's more complex understanding and deep learning of the concept of growth and change.

Reference handout.

 **"Web of Learning Experiences"**




Facilitator: *Pair up with your partner and choose one of the ideas related to the growth of people. Plan one or two learning experiences that will help children deepen their understanding of that aspect of growth and change. Write these learning experiences on your handout.*







Give participants time to discuss and complete their handouts. Here are some ideas for learning experiences:

- **Increase in size:**
 - *Measuring children's changing heights on the wall*
 - *Tracing or using paint prints of children's hands and feet*
 - *Observing photographs of children from when they were babies*
 - *Comparing and contrasting old clothing or shoes with current things they wear*

STEP 4:
PRACTICE *Continued*

PRESENTATION SEQUENCE	FACILITATOR'S NOTES
<div style="border: 1px solid red; padding: 10px; text-align: center;">  <p>The variety of learning experiences helps children learn the richness of the concept of growth and change.</p>  <p>Go to step 5: REFLECT</p> </div>	<ul style="list-style-type: none"> ■ What people need to grow: <ul style="list-style-type: none"> ■ Brainstorming with children during circle time about what their bodies need to grow ■ Reading books about what helps our bodies grow ■ Growing takes time: <ul style="list-style-type: none"> ■ Dramatic play around birthdays ■ Discussion of age during circle time <p>Ask for each pair to share one example of a learning experience and which growth-related idea this learning experience supports. Encourage participants to continue filling in their web handouts with the multiple, related opportunities the group has brainstormed.</p> <p>Facilitator: <i>By creating this web of learning experiences, you are building on what children know, providing multiple experiences, and allowing children to explore this concept over time.</i></p> <p> Facilitator: <i>The variety of learning experiences offered within Keisha's program helps children learn the richness of the concept of growth and change.</i></p>

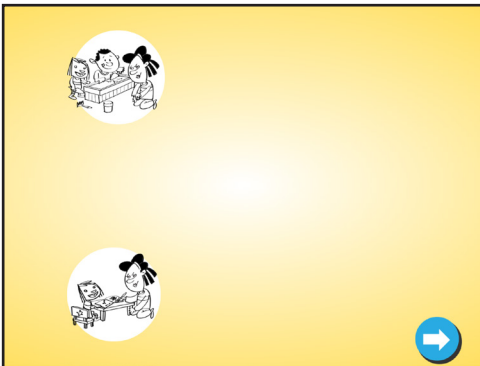
STEP 5:
REFLECT

PRESENTATION SEQUENCE	FACILITATOR'S NOTES
<div style="border: 1px solid green; padding: 10px; text-align: center;"> <p>Step 5</p>  <p>Let's reflect on how Keisha intentionally planned for deep learning.</p>   </div>	<p>[3 min]  Step 5 - Reflect</p> <p>Facilitator: <i>Let's reflect on how Keisha intentionally planned for deep learning.</i></p>

STEP 5: *Continued*
REFLECT

PRESENTATION SEQUENCE

FACILITATOR'S NOTES



Facilitator: *Keisha's group had a series of experiences in which they learned about the growth and change of plants. After that, they had a series of experiences in which they learned about the growth and change of people.*



Facilitator: *How do these multiple, related learning experiences in Keisha's program deepen children's understanding of growth and change?*

Pause for responses from the group.

Facilitator: *From these rich and diverse learning experiences, children make the connection that*

- *Living things grow and change over time*
- *Growth includes a change in size and appearance*
- *Living things need a variety of things to grow*

To wrap up this example, refer to your handout for additional topics to continue building on the learning experiences about growth and change in various contexts.



Facilitator: *Many different topics can be explored to support deeper understanding of growth and change.*


Many different topics can be explored to support deeper understanding of growth and change.

[Go to step 6: EXPAND](#)

STEP 6:
EXPAND

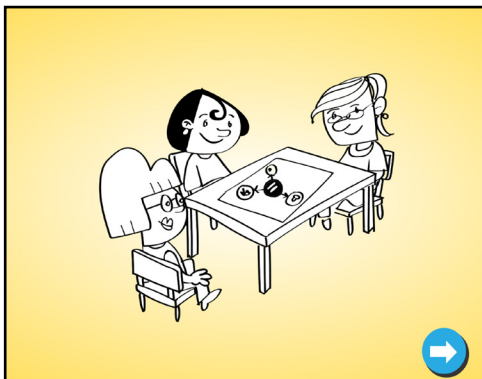
PRESENTATION SEQUENCE

Step 6



Think about how you can apply these ideas in your program.





FACILITATOR'S NOTES

[1 min]



Step 6 - Expand

Facilitator: *Think about how you can apply these ideas in your program.*

Reference handout.

 **"Planning in Your Program"**

Facilitator: *Here is a list of broad concepts children can investigate over an extended period of time:*

- Habitats
- Families
- Use of tools
- Motion
- Social roles and occupations

Choose one of these concepts, or come up with your own concept that relates to the interests of children in your care.

To plan deep learning experiences, break the broad concept down into specific ideas. In addition to the examples listed on your handout, what other ideas related to the concept might you add?





Give participants time to do this independent exercise. Ask for volunteers to share some of their additional ideas related to the concept.



Facilitator: *Schedule a curriculum-planning meeting with your team or meet with a colleague to discuss the concept and the ideas related to the concept. You can use the web on your handout as a planning tool to provide multiple, related learning opportunities for children to explore this concept over the next few weeks.*



STEP 6: EXPAND *Continued*

PRESENTATION SEQUENCE	FACILITATOR'S NOTES
<div style="border: 1px solid red; padding: 10px; text-align: center;">  <p>Repeated, related learning experiences support children's deep learning and understanding of complex concepts.</p>   </div>	<p>Facilitator: <i>Repeated, related learning experiences support children's deep learning and understanding of complex concepts.</i></p> <p> Infographic Poster</p> <p>Pass out the infographic poster to participants. Invite participants to hang the poster in their programs as a reminder of how to plan deep learning experiences.</p>

THIS PD2GO PACK WAS INFORMED BY THE FOLLOWING RESOURCES:

- California Department of Education. (2013). *California preschool curriculum framework* (Vol. 3). Sacramento, CA: California Department of Education.
- Copple, C., & Bredekamp, S. (2009). *Developmentally appropriate practice in early childhood programs serving children birth through age 8*. Washington, DC: National Association for the Education of Young Children.
- Gelman, R., Brenneman, K., MacDonald, G., & Roman, M. (2010). *Preschool pathways to science*. Baltimore, MD: Paul H. Brookes Publishing Co.
- Rushton, S., & Larkin, E. (2001). Shaping the learning environment: Connecting developmentally appropriate practices to brain research. *Early Childhood Education Journal*, 29(1), 25–33.
- Worth, K., & Grollman, S. (2003). *Worms, shadows, and whirlpools: Science in the early childhood classroom*. Washington, DC: Education Development Center, Inc.