

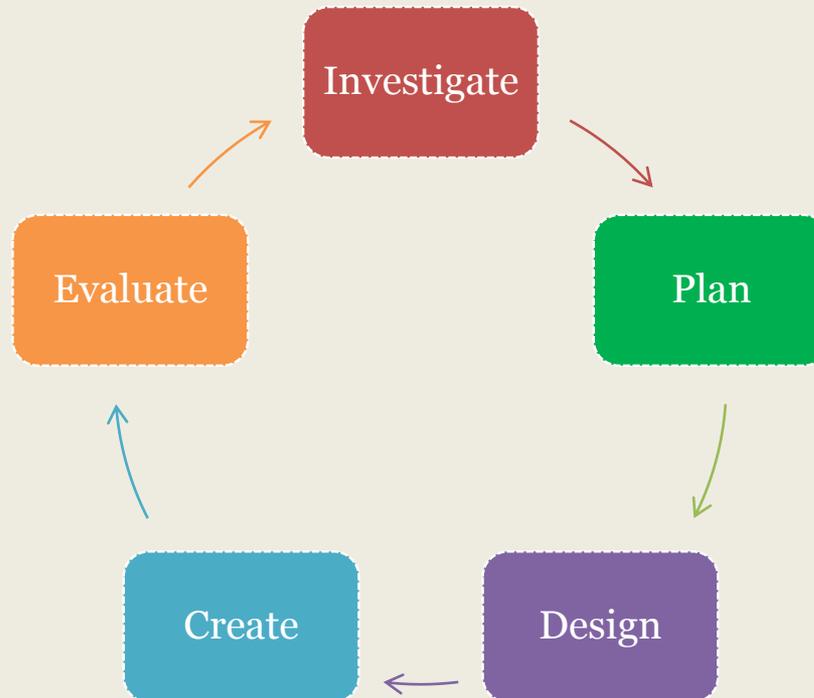
Introducing the IB Design Cycle



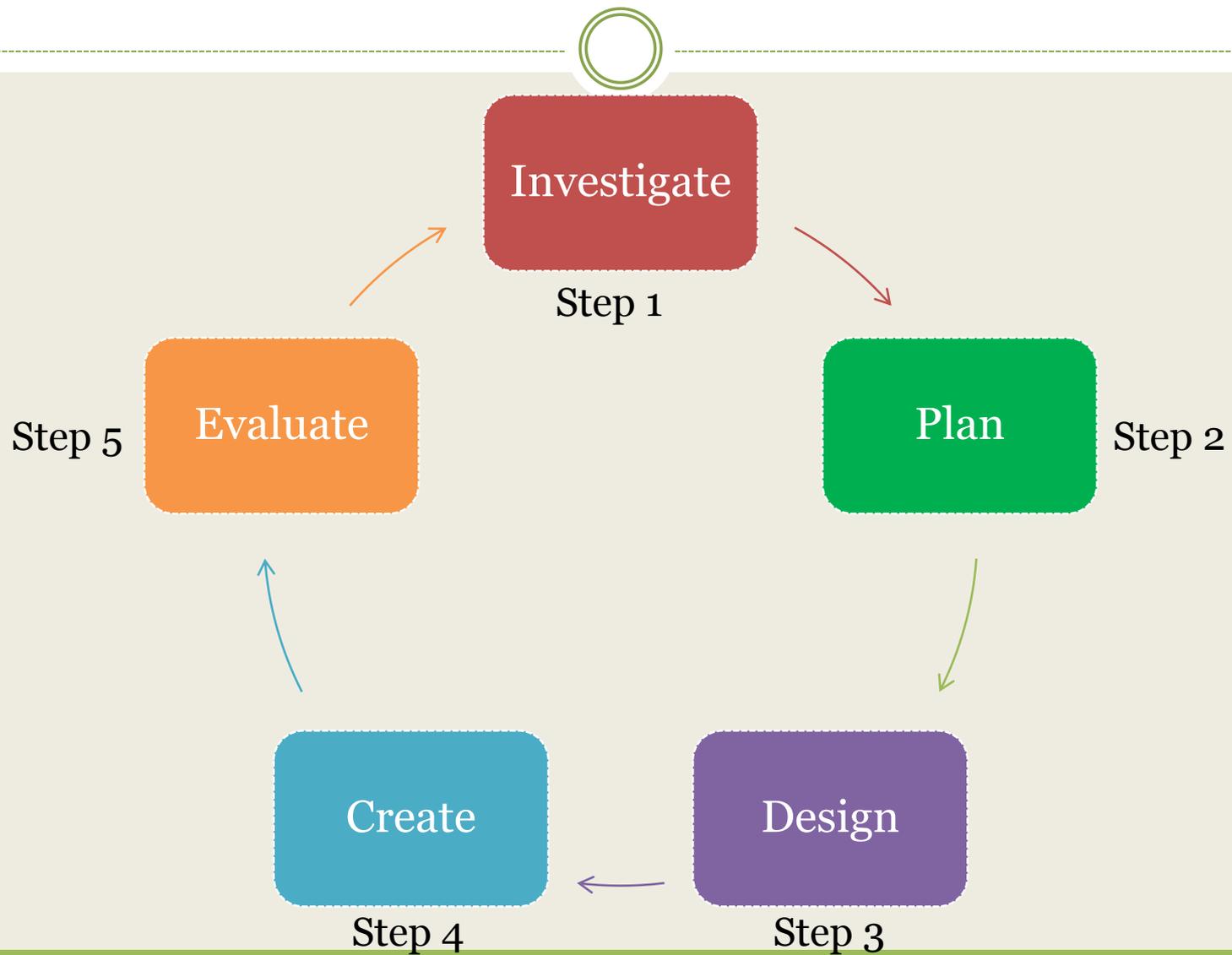
What is the IB Design Cycle?



- The IB design cycle is a tool used by International Baccalaureate students to help them create and evaluate solutions in response to challenges.



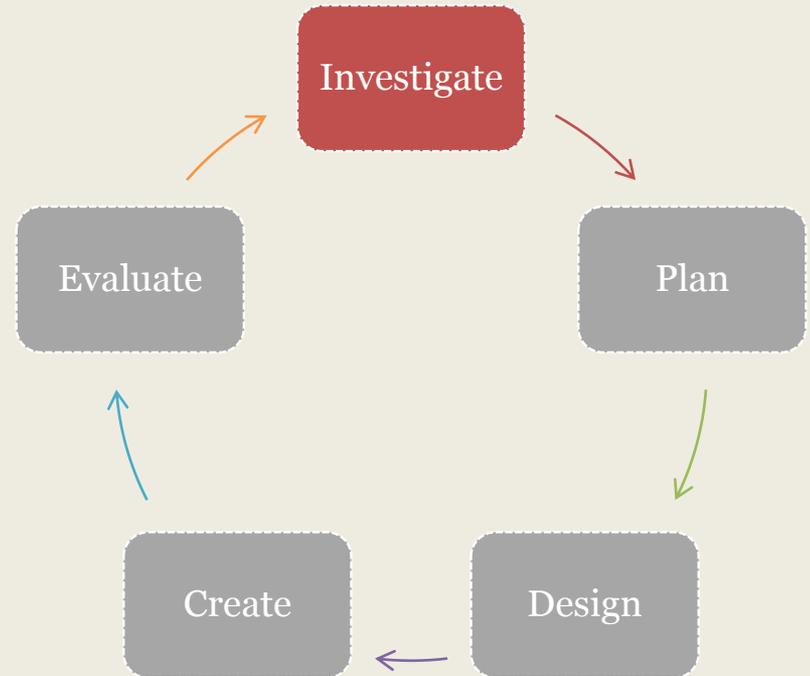
Five Steps of the IB Design Cycle



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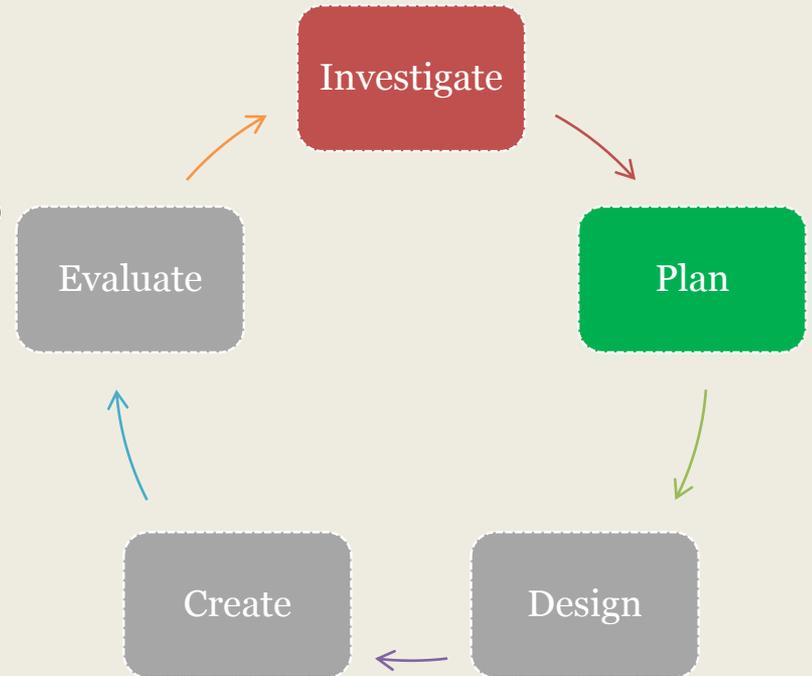
- **Investigate:** Consider possibilities and ideas. Explore resources, i.e. World Wide Web documents, books, magazines and materials or ingredients.
 - Questions to ask: Do I like this project? Do I have the materials I need to create it at home or do I need to purchase them? Do I have enough time to complete it?
 - ✦ Example: Goal is to make brownies.
 - ✦ Research online recipes at www.foodnetwork.com to find a list of highly-rated recipes.
 - ✦ What supplies will you need to make the brownies?



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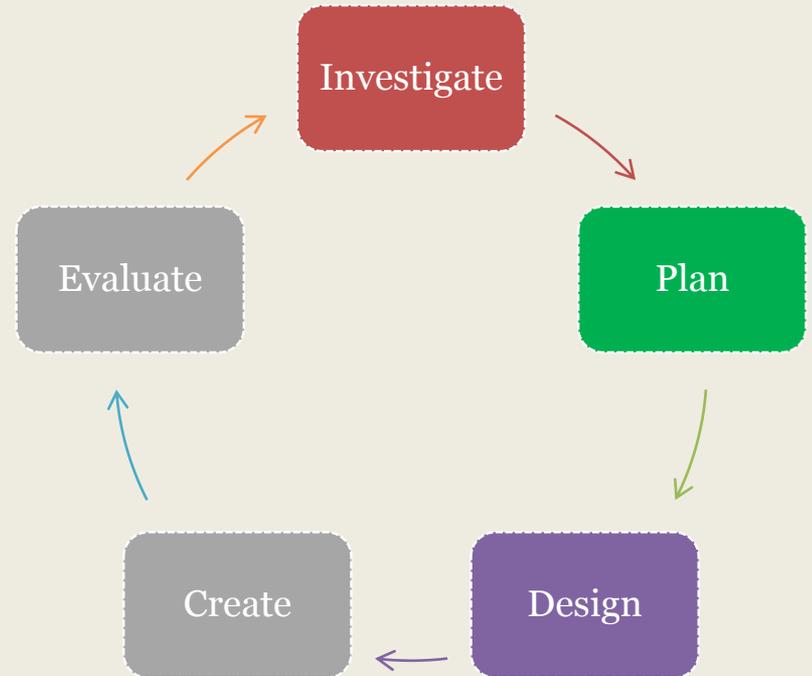


- **Plan:** Write a list of supplies or ingredients. Search the pantry/refrigerator/garage, etc. to find supplies.
 - Questions to ask: Do I like this project idea? Do I have the materials I need to create it at home or do I need to purchase them? Do I have enough time to complete it?
 - Example: Goal is to make brownies.
 - Write a shopping list of all required ingredients that you must purchase from the store.
 - Set out all of the tools to create the brownies.
 - Pan, bowl, spoon



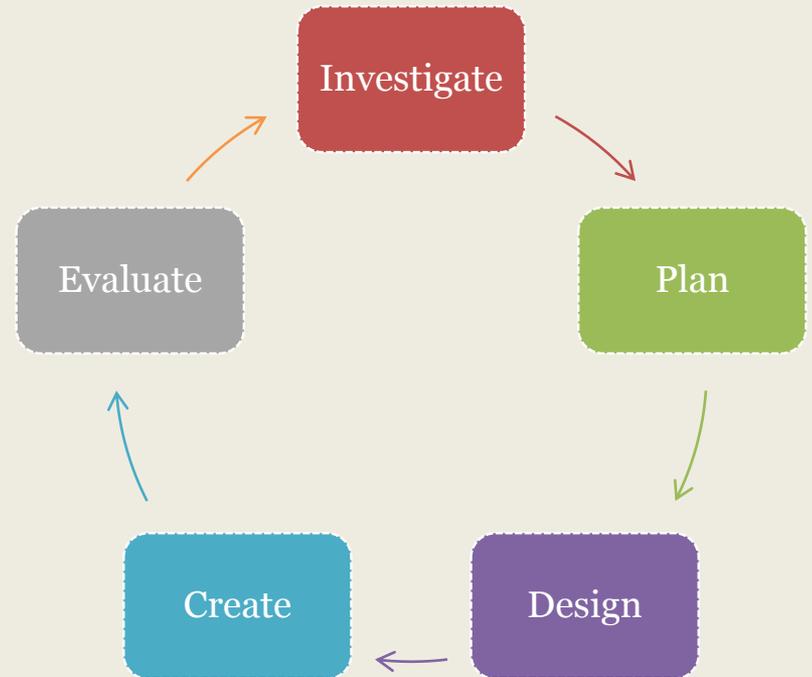
Five Steps of the IB Design Cycle

- **Design:** Ideas for the project. Includes sketches, lists of supplies or ingredients.
 - Questions to ask: What should the final project look like? What are its dimensions? Color? Consistency? Format?
 - ✦ Example: Goal is to make brownies.
 - ✦ Sketch a diagram of the project design.
 - ✦ How do you want the brownies to look? Size, shape, thickness.
 - ✦ Theme: Frosting? Powdered sugar designs? Candy decorations? Special events, like American Flags for 4th of July?



Five Steps of the IB Design Cycle

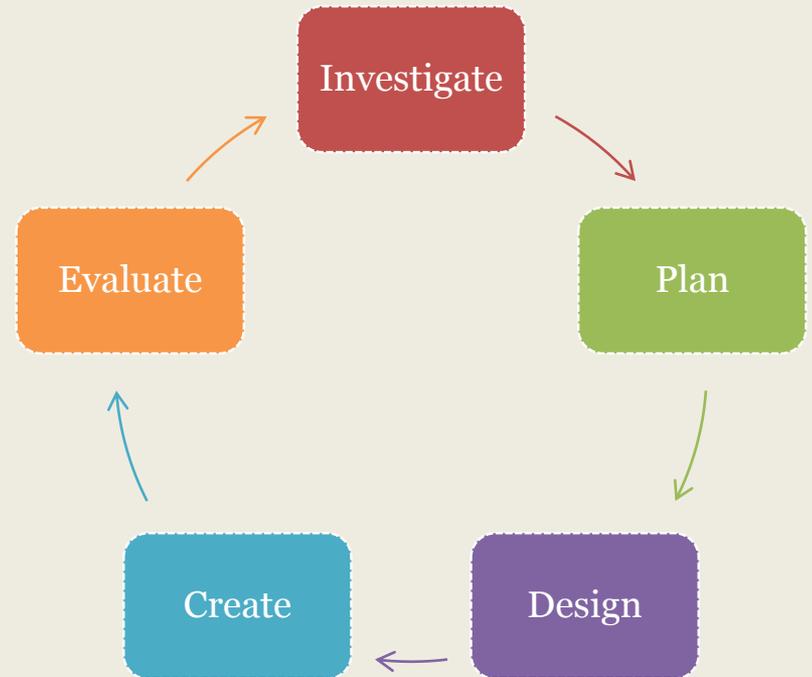
- **Create:** This is the implementation of Step #2 - Plan. The majority of the work will be done here.
 - Example: Goal is to make brownies.
 - ✦ Set the oven temperature.
 - ✦ Create the brownies according to the instructions.
 - Mix dry ingredients.
 - Mix wet ingredients.
 - Combine.
 - Bake.
 - Cool the brownies. Cut and decorate according to **Step #3 – Design.**



Five Steps of the IB Design Cycle



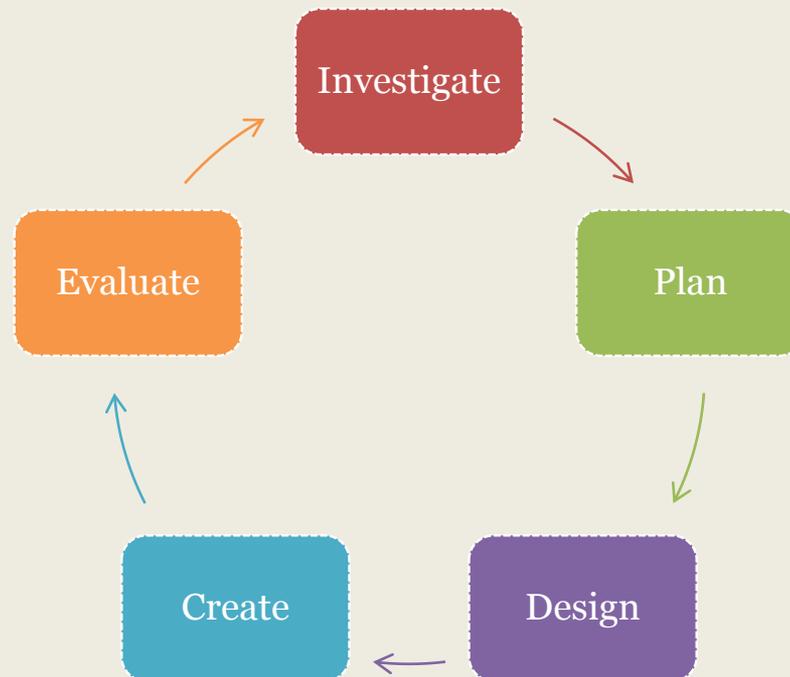
- **Evaluate:** This is where you reflect on what you have done.
 - Question to ask: Did the final creation or outcome meet the specifications or requirements of the project?
 - ✦ Example: Goal is to make brownies.
 - ✦ Evaluate the brownies. How do they look? Taste? Baked correctly or undercooked? Burnt?



Following the Design Cycle Structure



- These phases do not always follow this pattern. Sometimes we must start over, sometimes we must jump ahead. The Design Cycle is fluid. It's about the journey as much as the end results.



IB Design Notebook and Folder



- The IB Design Cycle requires the use of an IB Design Notebook and Folder.
 - Spiral notebook, college-ruled (for note-taking)
 - Two-Pocket Folder with prongs (for handouts and sketches)

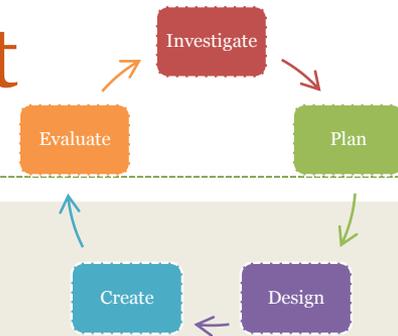
Examples



Use the IB Design Cycle to...

- Create a dance routine.
- Write a short story.
- Write a musical composition.
- Plan a birthday party.
- Learn to play a clarinet.
- Build a solar oven.
- Create a video game.

IB Design Cycle Assignment



- **Assignment – Part 1a**

1. Choose your topic from the list or one of your own.
2. Draw the IB Design Cycle in your IB Design Spiral Notebook.
3. Below the IB Design Cycle drawing, make a list of all required steps, materials, etc.
4. Write this information next to each part of the design cycle.

- **Assignment – Part 1b**

1. Create a Power Point slide. Use SmartArt to create the IB Design Cycle. Use text boxes to explain each step of the IB Design Cycle. Save to server. Submit via email to yourself AND to me. (See next slide for details).
2. Present your slide to the class for evaluation.

How to Save the Assignment



- Save the file like this example...

(Name of Class)

Smith Susie CBO5 IB Design Cycle Topic

(Last Name First Name)

(Name of Assignment)

- Save the file to the server. \\maasdata2\myhome
...AND...
- Email the file to yourself and send a cc: to me so I can check your work.

kmprocop@mpsaz.org

Using the IB Design Cycle at the Academy



We will use the IB Design Cycle as we complete assignments and projects.

Examples:

- Create a website – CTEC6
- Create a database – CB02
- Create an animation – CB05



Using the IB
Design Cycle to
Grow a Flower
Garden

by Student

Grow a Flower Garden

Step #5: Reflect on your work. Does it look nice and smell good? Is it easy to manage? What are your favorite flowers? Are the plants healthy? Are they receiving enough water? Are insects or critters invading the garden?

Step #4: Time to get digging! Grab your trowel and wheel barrel and get busy according to your plan in Step #2.



Step #1: Research different plants and their needs. Consider how much water, sun, shade, food, pest control and care they will need. When is the best time of the year to create this garden?

Step #2: Plan where and when you are going to plant the garden. Make a list of seeds, plants, flowers and supplies you will need to purchase.

Step #3: Design the garden. Make a sketch of where the pathways are going and which plants are going where. Write where each plant is going based on their needs. Determine path of irrigation system.