

Study guide for Exam PL-900: Microsoft Power Platform Fundamentals

Purpose of this document

This study guide should help you understand what to expect on the exam and includes a summary of the topics the exam might cover and links to additional resources. The information and materials in this document should help you focus your studies as you prepare for the exam.

Useful links	Description
Review the skills measured as of March 24, 2023	This list represents the skills measured AFTER the date provided. Study this list if you plan to take the exam AFTER that date.
Review the skills measured prior to March 24, 2023	Study this list of skills if you take your exam PRIOR to the date provided.
Change log	You can go directly to the change log if you want to see the changes that will be made on the date provided.
How to earn the certification	Some certifications only require passing one exam, while others require passing multiple exams.
Your Microsoft Learn profile	Connecting your certification profile to Learn allows you to schedule and renew exams and share and print certificates.
Passing score	A score of 700 or greater is required to pass.
Exam sandbox	You can explore the exam environment by visiting our exam sandbox.
Request accommodations	If you use assistive devices, require extra time, or need modification to any part of the exam experience, you can request an accommodation.
Take a free Practice Assessment	Test your skills with practice questions to help you prepare for the exam.

Updates to the exam

Our exams are updated periodically to reflect skills that are required to perform a role. We have included two versions of the Skills Measured objectives depending on when you are taking the exam.

We always update the English language version of the exam first. Some exams are localized into other languages, and those are updated approximately eight weeks after the English version is updated. While Microsoft makes every effort to update localized versions as noted, there may be times when the localized versions of an exam are not updated on this schedule. Other available languages are listed in the **Schedule Exam** section of the **Exam Details** webpage. If the exam isn't available in your preferred language, you can request an additional 30 minutes to complete the exam.

Note

The bullets that follow each of the skills measured are intended to illustrate how we are assessing that skill. Related topics may be covered in the exam.

Note

Most questions cover features that are general availability (GA). The exam may contain questions on Preview features if those features are commonly used.

Skills measured as of March 24, 2023

Audience profile

Candidates for this exam aspire to understand how Microsoft Power Platform technologies can be used to improve processes and help drive business outcomes. The exam is intended for candidates seeking to start their journey building solutions with Microsoft Power Platform.

This exam can be used to prepare for role-based or specialty certifications, but it is not a prerequisite for any of them.

- Describe the business value of Microsoft Power Platform (20–25%)
- Identify foundational components of Microsoft Power Platform (10–15%)
- Demonstrate the capabilities of Power BI (10–15%)
- Demonstrate the capabilities of Power Apps (20–25%)
- Demonstrate the capabilities of Power Automate (15–20%)
- Describe complementary Microsoft Power Platform solutions (15–20%)

Describe the business value of Microsoft Power Platform (20–25%)

Describe the business value of Microsoft Power Platform services

- Describe the value of Power Apps to build applications
- Describe the value of Power Automate to automate processes
- Describe the value of Power BI to gain insights into data
- Describe the value of Power Pages to build websites

- Describe the value of Power Virtual Agents to create chatbots
- Describe the value of connectors to integrate services and data
- Describe the value of Microsoft Dataverse to organize business data
- Describe the value of AI Builder to enhance apps and flows

Describe the business value of extending business solutions by using Microsoft Power Platform

- Describe how Microsoft Power Platform apps work together with Microsoft Dynamics 365 apps
- Describe how Microsoft Power Platform business solutions work together with Microsoft 365 apps and services
- Describe how Microsoft Power Platform apps work together
- Describe how Microsoft Power Platform works with Microsoft Teams
- Describe how Microsoft Power Platform business solutions can consume Microsoft Azure services

Describe Microsoft Power Platform administration and governance

- Describe the Microsoft Power Platform security model
- Describe environments
- Describe where to perform specific administrative tasks including Microsoft Power Platform admin center and Microsoft 365 admin center
- Describe how Microsoft Power Platform supports privacy and accessibility guidelines

Identify foundational components of Microsoft Power Platform (10–15%)

Describe Microsoft Dataverse

- Describe differences between traditional databases and Microsoft Dataverse
- Describe tables, columns, and relationships in Microsoft Dataverse
- Describe business logic in Microsoft Dataverse
- Describe dataflows for Microsoft Dataverse

Describe connectors

- Describe the components of a connector
- Describe standard and premium connectors
- Identify use cases for custom connectors

Demonstrate the capabilities of Power BI (10–15%)

Identify basic Power BI components

- Describe Power BI Desktop and Power BI Service
- Compare and contrast dashboards, workspaces, reports, and paginated reports
- Describe how to clean and transform data by using Power Query

- Describe how AI Insights helps identify anomalies and trends in data

Build a basic dashboard by using Power BI

- Create a Power BI report by adding visualizations
- Create a Power BI dashboard
- Add visualizations to dashboards by using Q&A
- Consume Power BI reports and dashboards

Demonstrate the capabilities of Power Apps (20–25%)

Identify basic Power Apps capabilities

- Describe the differences between canvas apps and model-driven apps
- Describe use cases for and capabilities of canvas apps
- Describe use cases for and capabilities of model-driven apps

Build a basic canvas app

- Connect to data sources by using connectors
- Create an app from data
- Add controls to canvas app screens

Build a basic model-driven app

- Create a model-driven app from tables
- Modify forms
- Create and modify views

Demonstrate the capabilities of Power Automate (15–20%)

Identify basic Power Automate components

- Describe use cases for cloud and desktop flows
- Describe use cases for cloud flow templates
- Describe how Power Automate cloud flows use connector triggers and actions
- Describe Power Automate use cases for approvals, Microsoft Teams, Outlook, SharePoint, and Forms
- Describe the Power Automate apps including Power Automate for Desktop, Power Automate mobile, and the Power Automate portal
- Describe actions for Power Automate desktop flows
- Describe document processing in Power Automate

Build a basic Power Automate flow

- Create a cloud flow by using an instant, automated, or scheduled flow template
- Modify a cloud flow
- Add flow steps to perform data operations

- Run a cloud flow
- Build a basic desktop flow by recording tasks

Describe complementary Microsoft Power Platform solutions (15–20%)

Describe the capabilities of Power Virtual Agents

- Describe use cases for Power Virtual Agents
- Describe the purpose of topics, entities, and actions
- Create topics from existing FAQs by using Suggest Topics

Describe the capabilities of Power Pages

- Describe use cases for Power Pages
- Describe use cases for templates
- Describe how to share data externally

Describe the capabilities of AI Builder

- Describe use cases for AI Builder
- Describe the lifecycle to create an AI Builder model

Study resources

We recommend that you train and get hands-on experience before you take the exam. We offer self-study options and classroom training as well as links to documentation, community sites, and videos.

Study resources	Links to learning and documentation
Get trained	Choose from self-paced learning paths and modules or take an instructor led course
Find documentation	Microsoft Power Platform documentation Power BI documentation Microsoft Power Apps documentation Power Automate documentation Microsoft Power Virtual Agents documentation
Ask a question	Microsoft Q&A Microsoft Docs
Get community support	Power Platform Community (microsoft.com)

Study resources	Links to learning and documentation
Follow Microsoft Learn	Microsoft Learn - Microsoft Tech Community
Find a video	#LessCodeMorePower Shows Browse other Microsoft Learn shows

Change log

Key to understanding the table: The topic groups (also known as functional groups) are in bold typeface followed by the objectives within each group. The table is a comparison between the two versions of the exam skills measured and the third column describes the extent of the changes.

Skill area prior to March 24, 2023	Skill area as of March 24, 2023	Change
Audience profile		Major
Describe the business value of Microsoft Power Platform	Describe the business value of Microsoft Power Platform	No % change of exam
Describe the business value of Microsoft Power Platform services	Describe the business value of Microsoft Power Platform services	Major
Describe the business value of extending business solutions by using Microsoft Power Platform	Describe the business value of extending business solutions by using Microsoft Power Platform	Major
Describe Microsoft Power Platform administration and security	Describe Microsoft Power Platform administration and governance	Major
Identify the core components of Microsoft Power Platform	Identify foundational components of Microsoft Power Platform	No % change of exam
Describe Microsoft Dataverse	Describe Microsoft Dataverse	Major
Describe connectors	Describe connectors	Minor
Demonstrate the capabilities of Power BI	Demonstrate the capabilities of Power BI	% of exam decreased
Identify common Power BI components	Identify basic Power BI components	Major
Connect to and consume data		Removed
Build a basic dashboard using Power BI	Build a basic dashboard using Power BI	Major

Skill area prior to March 24, 2023	Skill area as of March 24, 2023	Change
Demonstrate the capabilities of Power Apps	Demonstrate the capabilities of Power Apps	% of exam decreased
Identify common Power Apps components	Identify basic Power Apps capabilities	Major
Build a basic canvas app	Build a basic canvas app	Major
Build a basic model-driven app	Build a basic model-driven app	Minor
Demonstrate the capabilities of Power Automate	Demonstrate the capabilities of Power Automate	% of exam increased
Identify common Power Automate components	Identify basic Power Automate components	Major
Build a basic cloud flow	Build a basic Power Automate flow	Minor
Demonstrate the capabilities of Power Virtual Agents	Describe complementary Microsoft Power Platform solutions	% of exam increased
Describe the capabilities of Power Virtual Agents in Microsoft Teams	Describe the capabilities of Power Virtual Agents	Major
Build and publish a basic chatbot		Removed
	Describe the capabilities of Power Pages	New
	Describe the capabilities of AI Builder	New

Skills measured prior to March 24, 2023

Audience profile

Candidates for this exam aspire to improve productivity by understanding the capabilities of the Microsoft Power Platform, automating basic business processes with Power Automate, performing basic data analysis with Power BI, acting more effectively by creating simple Power Apps experiences, and creating powerful chatbots by using Power Virtual Agents.

- Describe the business value of Microsoft Power Platform (20–25%)
- Identify the core components of Microsoft Power Platform (10–15%)
- Demonstrate the capabilities of Power BI (20–25%)
- Demonstrate the capabilities of Power Apps (25–30%)
- Demonstrate the capabilities of Power Automate (10–15%)

- Demonstrate the capabilities of Power Virtual Agents (1–5%)

Describe the business value of Microsoft Power Platform (20–25%)

Describe the business value of Microsoft Power Platform services

- Gain insights into data by using Power BI
- Build applications quickly by using Power Apps
- Automate processes by using Power Automate
- Use connectors to integrate services and data
- Create powerful chatbots by using the Power Virtual Agents web app and Power Virtual Agents in Microsoft Teams

Describe the business value of extending business solutions by using Microsoft Power Platform

- Describe how Microsoft Power Platform apps work together with Dynamics 365 apps
- Describe how Microsoft Power Platform business solutions work together with Microsoft 365 apps and services
- Describe how Microsoft Power Platform apps work together
- Describe how to use Microsoft Power Platform solutions with Microsoft Teams
- Describe how Microsoft Power Platform business solutions can consume Microsoft Azure services including Azure Cognitive Services
- Describe how Microsoft Power Platform business solutions can consume third-party apps and services
- Describe use cases for AppSource

Describe Microsoft Power Platform administration and security

- Describe how Microsoft Power Platform implements security including awareness of Microsoft Dataverse security roles, Azure Identity Services, and Access Management (IAM)
- Describe how to manage apps and users
- Describe environments
- Describe where to perform specific administrative tasks including Microsoft Power Platform admin center and Microsoft 365 admin center
- Describe data policies
- Describe how Microsoft Power Platform supports privacy and accessibility guidelines
- Describe Microsoft Power Platform governance capabilities
- Describe analytics and how they can be used

Identify the core components of Microsoft Power Platform (10–15%)

Describe Microsoft Dataverse

- Describe the difference between databases and Dataverse
- Describe differences between Dataverse and Dataverse for Teams

- Describe tables, columns, and relationships
- Describe how to use common standard tables to describe people, places, and things
- Describe business logic uses including business rules, real-time workflows, and actions
- Describe dataflows and their uses
- Describe solutions and their purpose

Describe Connectors

- Describe triggers including trigger types and where triggers are used
- Describe actions
- Describe licensing options for connectors including standard or premium tier
- Identify use cases for custom connectors

Demonstrate the capabilities of Power BI (20–25%)

Identify common Power BI components

- Identify and describe uses for visualization controls including pie, bar, donut, and scatter plots and KPIs
- Describe the Power BI Desktop Reports, Data, and Model views
- Compare and contrast Power BI Desktop and Power BI Service
- Compare and contrast dashboards, workspaces, and reports
- Describe the Power BI security model
- Describe using Power BI in mobile apps

Connect to and consume data

- Connect to and combine data from multiple sources including Microsoft Excel
- Describe how to use Power Query to clean and transform data
- Describe and implement aggregate functions
- Identify available types of data sources including Microsoft Excel
- Describe use cases for shared datasets
- Describe use cases for template apps
- Describe options for viewing Power BI reports and dashboards

Build a basic dashboard using Power BI

- Create a Power BI report
- Create a Power BI dashboard
- Publish and share reports and dashboards

Demonstrate the capabilities of Power Apps (25–30%)

Identify common Power Apps components

- Describe the differences between canvas apps and model-driven apps
- Describe use cases for formulas

Build a basic canvas app

- Describe types of data sources
- Connect to data sources by using connectors
- Create an app from data
- Use controls to design the user experience
- Publish and share an app
- Describe embedding into Microsoft Teams

Build a basic model-driven app

- Create a model-driven app from tables
- Modify forms
- Create and modify views and columns
- Publish and share an app

Demonstrate the capabilities of Power Automate (10–15%)

Identify common Power Automate components

- Identify flow types including cloud, desktop, and business process flows
- Describe use cases for flows and available flow templates
- Describe how Power Automate uses connector triggers and actions
- Describe loops and conditions including switch, do until, and apply to each
- Describe expressions
- Describe use cases for approvals
- Describe the Power Automate apps, including Power Automate Desktop, Power Automate mobile, and Power Automate portal

Build a basic cloud flow

- Create a cloud flow by using the instant, automated, or scheduled flow template
- Modify a cloud flow
- Use flow steps to perform data operations
- Run a cloud flow

Demonstrate the capabilities of Power Virtual Agents (1–5%)

Describe the capabilities of Power Virtual Agents in Microsoft Teams

- Describe use cases for Power Virtual Agents within Microsoft Teams
- Describe topics, entities, and actions
- Describe message nodes, question nodes, conditions, trigger phrases, and the authoring canvas

Build and publish a basic chatbot

- Create a chatbot

- Create a topic
- Call an action
- Launch a Power Automate flow from a chatbot
- Publish a chatbot to different applications including Microsoft Teams, websites, and other apps