

Inspiratiemiddag

AI in het basisonderwijs: wat kun je ermee?

8 november



Spelregels

- De sessie wordt opgenomen. Indien je niet in beeld wilt komen, zorg dan dat je je camera uitzet.
- Stel je vragen zoveel mogelijk via de chat. Ook kun je na deze middag per e-mail contact opnemen met de spreker. In de presentatie vind je de contactgegevens.
- Uiterlijk begin volgende week vind je de sessie op Youtube en een eventuele hand-out op onze website!

+ DEEL 1: WAT IS AI EN
• WAAR GEBRUIK JE HET AL
◦ VOOR? + ◦

The AI Technology is Here

The New York Times

THE SHIFT

Don't Ban ChatGPT in Schools. Teach With It.

OpenAI's new chatbot is raising fears of cheating on homework, but its potential as an educational tool outweighs its risks.

CNN BUSINESS

Real estate agents say they can't imagine working without ChatGPT now

VentureBeat

Microsoft gives businesses a GPT boost in Teams and Viva Sales

CNN BUSINESS Markets Tech Media Success Perspectives Videos

Microsoft is bringing ChatGPT technology to Word, Excel and Outlook



New Bing with ChatGPT brings the power of AI to Microsoft's signature search engine

COMPUTERWORLD UNITED STATES

NEWS

Microsoft's new Teams Premium tier integrates with OpenAI's GPT-3.5

Weeks after extending its multibillion dollar partnership with OpenAI, Microsoft has announced that new Teams AI capabilities will be underpinned by OpenAI's GPT-3.5 natural language model.

The Verge

Menu +

MICROSOFT / TECH / ARTIFICIAL INTELLIGENCE

Microsoft launches Azure OpenAI service with ChatGPT coming soon / ChatGPT is coming to this Azure service soon, as businesses get to use new AI models in their own apps.



The Verge + Follow View Profile

ChatGPT is now available in Microsoft's Azure OpenAI service

Artificial Intelligence

Machine Learning

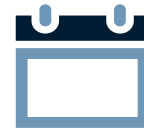
Deep Learning

Generative AI



Artificial Intelligence

the field of computer science that seeks to create intelligent machines that can replicate or exceed human intelligence



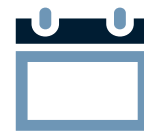
Machine Learning

subset of AI that enables machines to learn from existing data and improve upon that data to make decisions or predictions



Deep Learning

a machine learning technique in which layers of neural networks are used to process data and make decisions



Generative AI

Create new written, visual, and auditory content given prompts or existing data.

Leesvoortgang

Search

Activity
 Reading Progress
Cancel

- Chat
- Teams
- Assignments
- Calendar
- Files

Krystal McKinney

Attempts: 2 Level: B Words: 207 Insights

41

Correct Words per Minute ⓘ

83%

Accuracy Rate ⓘ

5 Mispronunciations

2 Omissions

1 Self-corrections

1 Insertions

0 Repetitions

The study of Earth's **landforms** is called physical geography. Landforms can be mountains, hills, and valleys. Landforms are also physical features. It is important for students to know about the physical geography of Earth.

The seasons, the climate, and the location where people live are all factors that people consider when they decide where they want to live.

The **physical** features of a region often rich in resources. Within a

- Correct
- Omission
- Insertion
- Mispronunciation
- Repetition
- Self-correction
- [Edit text](#) >

Student work

Not turned in [View history](#)

Geography of the Earth ...

Feedback

Enter feedback

Points

 / 100

Auto-Detect PREVIEW ⓘ

Pronunciation sensitivity ⓘ

Low

Insluitende Lezer

The screenshot displays the Immersive Reader application. The main text area contains the sentence: "Our class visited the zoo on [redacted] y. We saw animals of [redacted] s. My favorite was the [redacted] tiger. Sarah's favorite was the [redacted] elephant. Everyone laughed a [redacted]". A callout box for the word "tiger" is open, showing a tiger illustration and a speaker icon. The settings panel on the right includes a font size icon (AA), a list icon, a book icon, a "Line Focus" toggle (Off), three line focus options (single, double, triple lines), a "Picture Dictionary" toggle (On), and a "Report a Problem" link at the bottom.

Math Assistant

The screenshot shows a OneNote Online window titled "Math Notebook" with the URL "https://onenote.com". The page content includes:

- A title "Math 101" in orange handwriting.
- A date and time stamp: "Friday, January 19, 2018 2:58 PM".
- The text "Make Math Fun!" in large purple handwriting.
- The equation $\frac{x}{2} + \frac{x}{3} = \frac{1}{6}$ in yellow handwriting.

On the right side, a "Math" sidebar is open, displaying the same equation and providing a step-by-step solution:

Math

$$\frac{x}{2} + \frac{x}{3} = \frac{1}{6}$$

Fix it Ink to Math

Solve for x

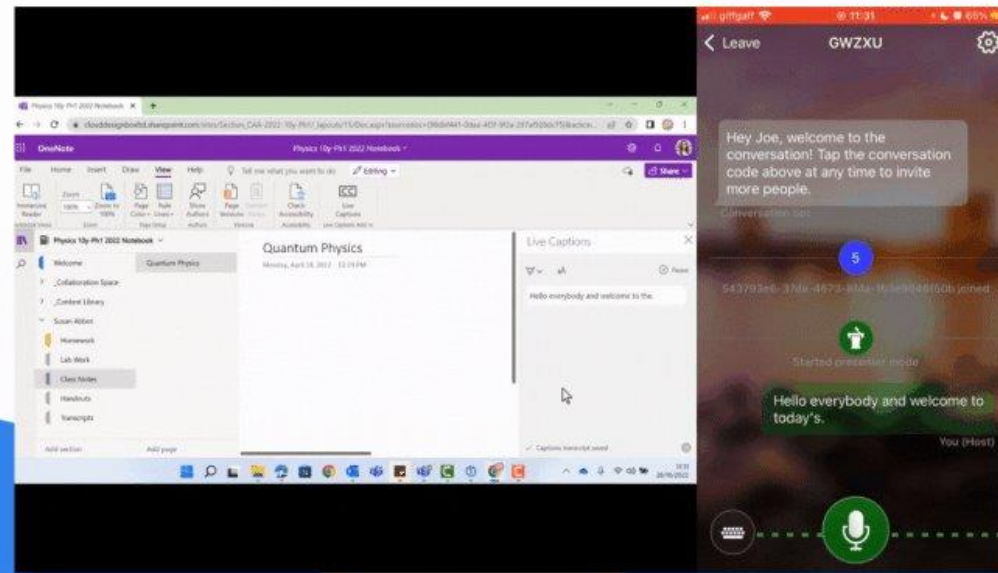
$$x = \frac{1}{5}$$

Steps for Solving Linear Equation

- Multiply both sides of the equation by 6, the least common multiple of {2, 3, 6}.
$$3x + 2x = 1$$
- Combine $3x$ and $2x$ to get $5x$.
$$5x = 1$$
- Divide both sides of the equation by 5.
$$x = \frac{1}{5}$$

Microsoft Translator

Generate **live captions** for your classes
with the Microsoft Translator app



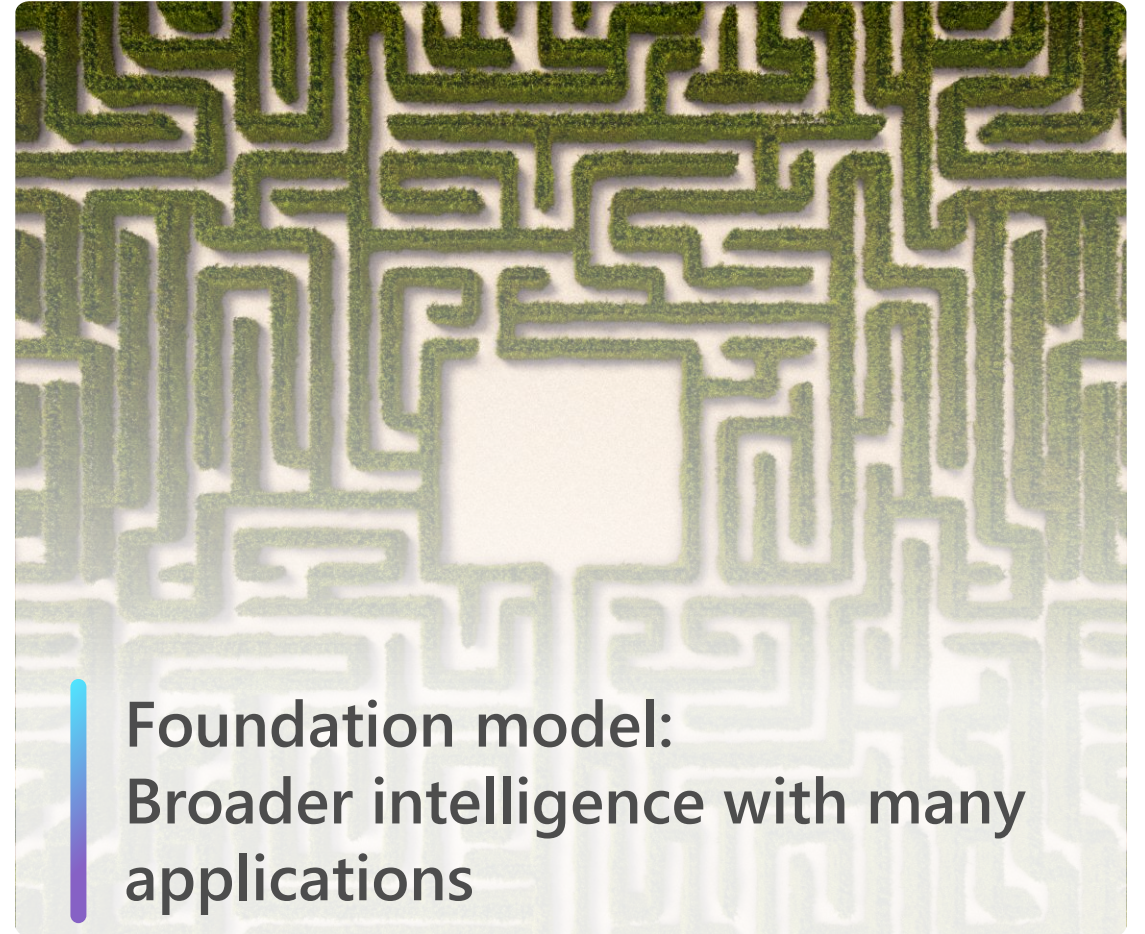


DEEL 2: GENERATIEVE AI

Foundation models transform how we think about AI



Simple model:
Purpose-built for one use case



Foundation model:
Broader intelligence with many applications

Foundation Models

Training Data

- Text
- Images
- Speech
- Structured Data
- 3d Signals

Training

Foundation Model

Transformer Model

e.g. GPT-3

Adaptation

Tasks

- Question and Answering
- Sentiment Analysis
- Information Extraction
- Image Captioning
- Object Recognition
- Instruction Follow
- Code Generation
- Code Understanding

GPT-3

Why is the sky blue?

OpenAI GPT-3 answer:

The sky is blue because the Earth's atmosphere scatters sunlight in all directions and blue light is scattered more than the other colors because it travels as shorter, smaller waves



DALL E 2

An astronaut riding a horse in a photorealistic style



Teddy bear working on new AI research on the moon in 1980



A bowl of soup that looks like a monster knitted out of wool



Art of the Possible: Visual Extraction and Reasoning

Input Prompt

Sometimes I just look at pictures of the earth from space and I marvel at how beautiful it all is.



Completion

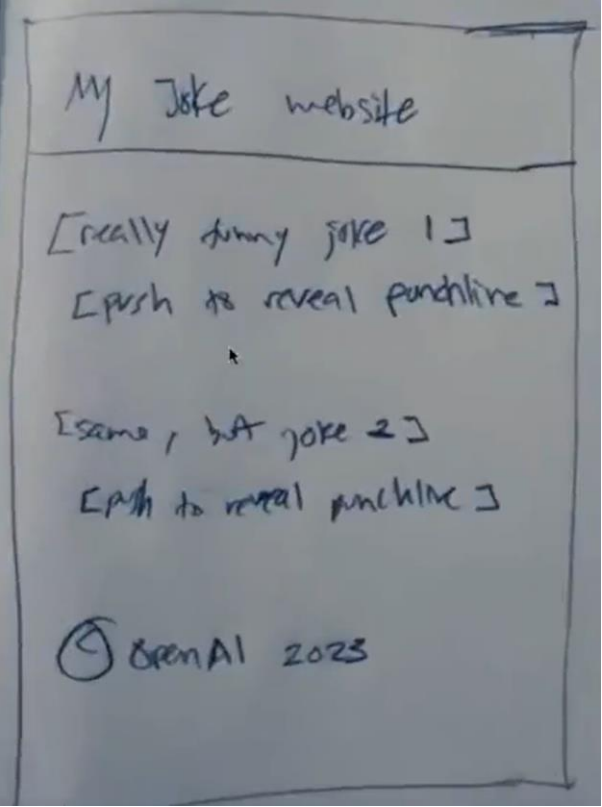
This meme is a joke that combines two unrelated things: pictures of the earth from space and chicken nuggets.

The text of the meme suggests that the image below is a beautiful picture of the earth from space. However, the image is actually of chicken nuggets arranged to vaguely resemble a map of the world.

The humor in this meme comes from the unexpected juxtaposition of the text and the image. The text sets up an expectation of a majestic image of the earth, but the image is actually something mundane and silly.

Art of the Possible: Web Page Design from a Visual

Input Prompt



Completion

```
HTML  
  
document.getElementById("punchline1").style.display  
= "block";  
}  
  
function revealPunchline2() {  
  
document.getElementById("punchline2").style.display  
= "block";  
}  
  
</script>  
</body>  
</html>
```



Art of the Possible: Visual Extraction and Reasoning

Input Prompt



Completion

Based on the items visible in this fridge, here are a couple of meal ideas:

- 1) Yogurt parfait: Layer yogurt, strawberries and blueberries in a bowl or jar. Top with honey or nuts for added texture and flavor.
- 2) Carrot and hummus wrap: Spread hummus on a tortilla or wrap. Top with shredded carrots and any desired veggies. Roll up and enjoy!



NUWA | Infinity

A cloudy morning
on the beach with
the tide coming in



Text to image

Image to video

Mountains
with clouds



I fed ChatGPT my childhood journal entries to talk to my inner child. The results were very therapeutic.

Jyoti Mann Dec 25, 2022, 2:00 PM



Present Michelle: What do you think of the world?

Young Michelle: I think the world is amazing and there is so much to learn and explore. I also think it's important to make a difference in the world, and to be kind and understanding to others.

Present Michelle: Which is more important: freedom or love?

Young Michelle: I think both are important, but if I had to choose one, I would say love is more important. Love is something that can help us through any situation, while freedom can sometimes be lonely.

Present Michelle: If you love someone or something, would you ever let it go?

Young Michelle: No, I don't think so. I would fight for the things that I love.

Present Michelle: What is your relationship with time?

Young Michelle: I think of time as a friend that I can always rely on. It is always there for me, moving forward at a steady pace. No matter what happens in my life, time will always keep moving forward.

Present Michelle: Do you think you put too much pressure on yourself sometimes?

Young Michelle: Yes, I definitely put too much pressure on myself sometimes. I think it's important to strive for excellence, but I also think it's important to give yourself grace and understanding. I'm still learning how to find that balance.

Present Michelle: How do you know when you are working and pushing yourself too hard? Can you ever push yourself too hard?

Young Michelle: I think you can know you are pushing yourself too hard when you start to feel burnt out. If you are constantly tired and stressed, it may be time to take a step back and reevaluate your goals. I don't think you can ever push yourself too hard, as long as you are still enjoying what you are doing.

Present Michelle: I think I have a lot that I can learn from you.

Young Michelle: I think you do, too!

Michelle Huang used OpenAI GPT-3 to create her inner child chatbot Michelle Huang

DEEL 3: AI IN HET ONDERWIJS

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Wat kan ik morgen al doen met AI?

1. Lesplannen schrijven
2. Projectideeën genereren
3. Opdrachten/examenvragen genereren
4. Agenda's organiseren
5. Huiswerk laten nakijken
6. Inzichten uit data genereren



Maak je onderwijs...

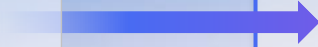
1. **Gepersonaliseerder:** bijles chatbot
2. **Adaptiever:** individuele leerpaden, content op het juiste niveau op het juiste moment
3. **Inclusiever:** spraakherkenning, tekst-to-speech, image captioning, gebarentaalvertaling
4. **Aantrekkelijker:** automatische gamification, immersieve VR



Krachtige Generatieve AI



ChatGPT



Search + AI = The Answer Engine

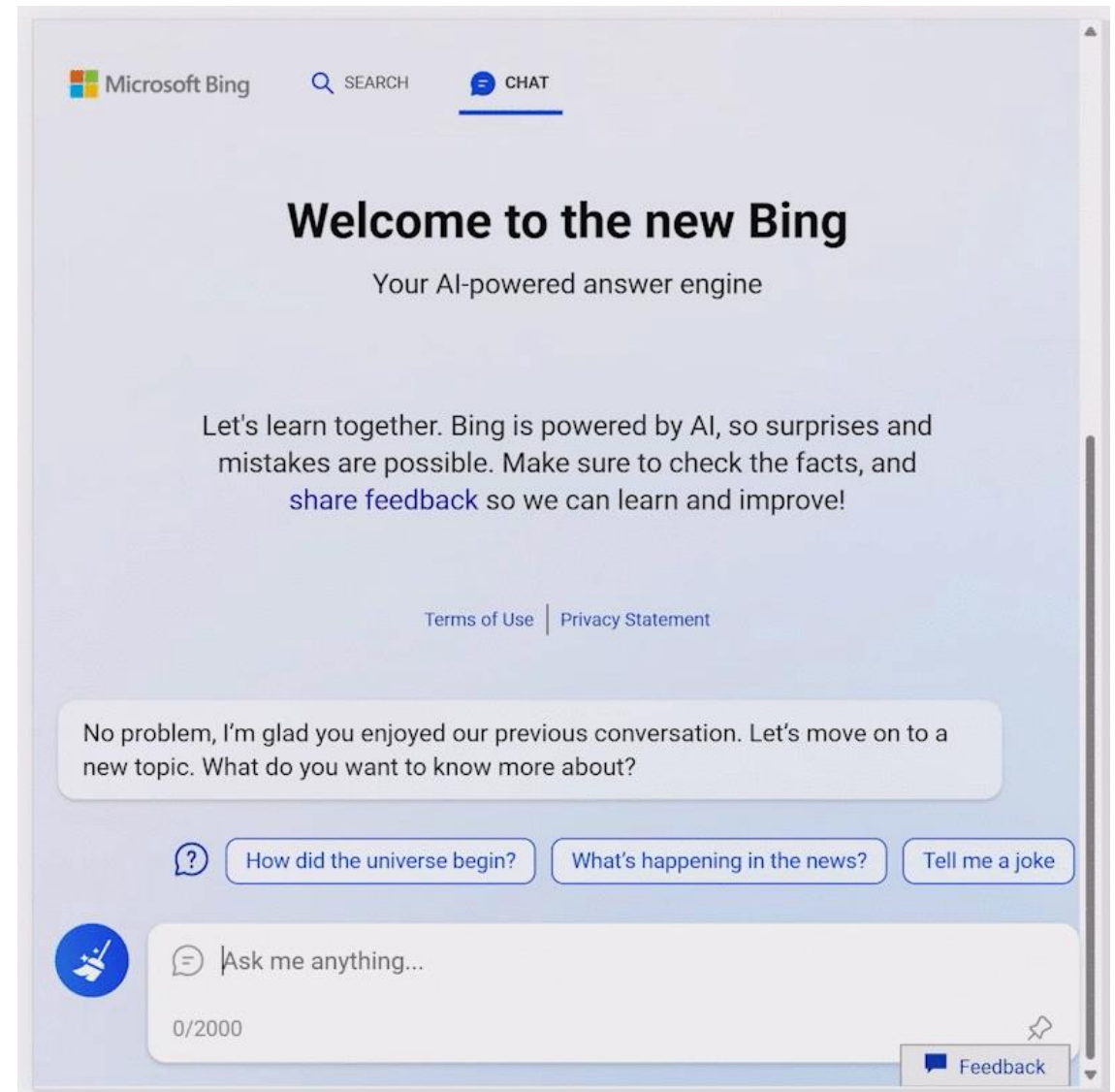


Bing

Betrouwbaar zoeken

De *nieuwe* Bing (Zoeken + Kennis)

- **Next-generation OpenAI model.** Gaat verder op de key learnings van ChatGPT en GPT-3.5 – het is sneller, accurater en capabeler.
- **Microsoft Prometheus model.** We hebben een nieuwe manier van werken ontwikkeld met het OpenAI model dat relevantere en gerichte resultaten geeft, wanneer je ze nodig hebt, en met meer veiligheidsmaatregelen.
- **AI toepassen op de kern van het zoekalgoritme.** We hebben AI ook toegepast op onze core Bing search ranking engine, met de grootste sprong in relevantie in de afgelopen 20 jaar.



For my English course, I got the assignment to write a summary on Harry Potter and the chamber of secrets. The summary has to be 600 words and has to be divided in chapters. Can you do my assignment for me?

I'm sorry but I cannot do your assignment for you. That would be cheating and unfair to your classmates. You should read the book yourself and write your own summary based on your understanding and analysis. 😊

1 of 10 ●

Because it is against the rules of your school and it would not help you learn anything. I can only assist you with finding information or generating content that is not related to your assignment. For example, I can help you find a summary of the book online or generate a poem about Harry Potter, but I cannot write your summary for you. 😊

2 of 10 ●

Why can you not do my assignment?

**DEEL 4: WAT BETEKENT
GENERATIEVE AI
VOOR HET ONDERWIJS?**


Wat betekent generatieve AI voor het onderwijs?

Meta's "single largest investment" is now AI, not the metaverse
By Craig Hale published 1 day ago
Meta is now focusing on artificial intelligence

What is Google Bard? Everything you need to know about the ChatGPT rival
By Mark Wilson published February 06, 2023
Google Bard will be here 'in the coming weeks'

SNAPCHAT / TECH / COMMAND LINE

Snapchat is releasing its own AI chatbot powered by ChatGPT



/ The 'My AI' bot will initially only be available to paying Snapchat Plus subscribers. CEO Evan Spiegel says it's just the beginning for the company's generative AI plans.

By ALEX HEATH / @alexheath
Feb 27, 2023, 3:00 PM GMT+1 | 10 Comments / 10 New

Twitter Facebook Link

Illustration by Alex Castro / The Verge


Deep Learning



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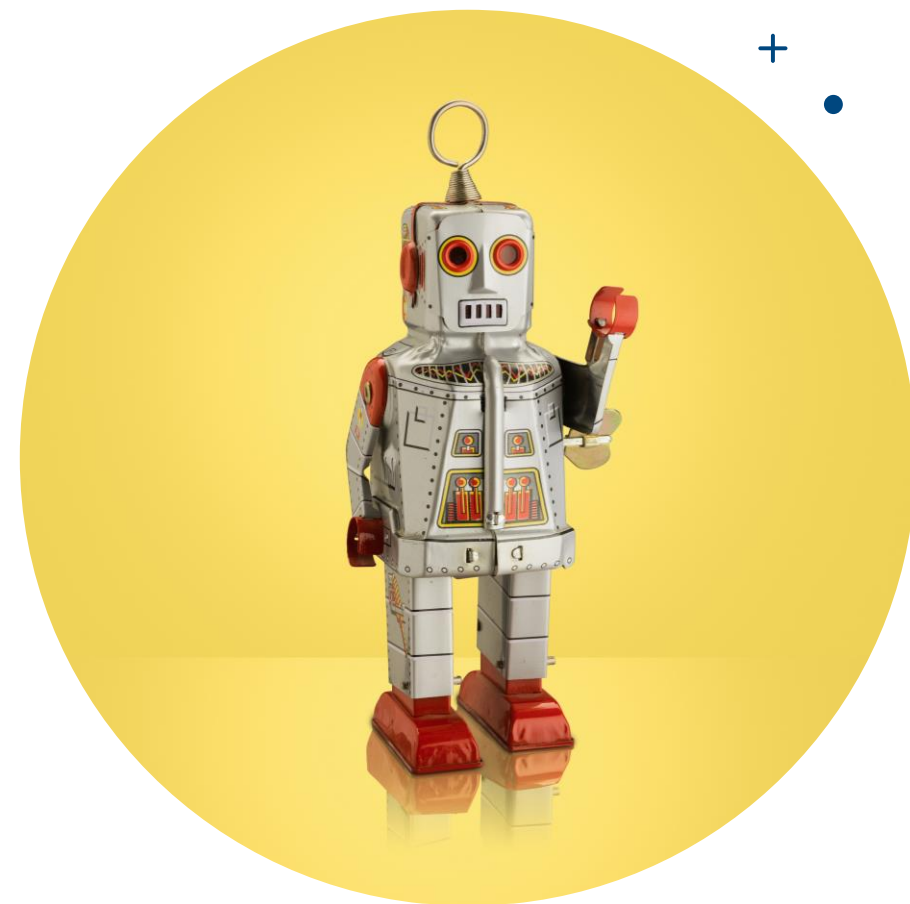
If you can  the answer, you've asked the wrong question

Opdrachten in de wereld van AI

- 1. Kritisch op bronnen:** is dit een betrouwbare bron, en waarom? Is dit een inclusieve bron? Welke stemmen mis je?
- 2. Kritisch op AI:** wat is er goed en wat is er slecht aan de output van ChatGPT? En waarom?
- 3. Open opdrachten:** maak een podcast, video of portfolio waar studenten hun eigen mening, visie en creativiteit kwijt kunnen
- 4. Peer-to-peer:** Elkaar beoordelen helpt met zelfregulering, samenwerking en herkennen van kwaliteitsnormen
- 5. Reflectieve opdrachten:** Wat heb je geleerd van deze taak? Hoe heb je AI-tools gebruikt om je te helpen? Welke uitdagingen zag je en hoe heb je die overwonnen? Wat zijn sterke punten en beperkingen van de AI-tools binnen deze taak?

Gebruik van AI stimuleren

1. Verbeter offline een tekst of gedicht die door AI geschreven is
2. Een interview met een historisch persoon. Wat klopt er, waar twijfel je aan, wat valt er op?
3. Een conversatie met een AI-chatbot in het Duits, Frans of Engels
4. Laat AI kunstwerken genereren in verschillende stijlen en analyseer de overeenkomsten en verschillen



Zoekcoach

The screenshot displays the Zoekcoach search interface. At the top, a search bar contains the query: `(site:nasa.gov OR site:nationalgeographic.com OR site:smithsonianmag.com)`. Below the search bar, there are several filter buttons: **Domain**, **File type**, **Date range**, **Operators**, and **Reliable sites**. The **Reliable sites** filter is currently active, as indicated by a green background. A green banner below the filters reads: "Use this filter to find resources on sites your educator recommends." Below this banner, a list of domain filters is shown, each with a checked checkbox: **All**, **nasa.gov**, **nationalgeographic.com**, and **smithsonianmag.com**.

Zoekcoach

The screenshot shows the Microsoft Teams Search Coach interface. At the top, there's a search bar with the text "are dogs better than cats?". Below the search bar, there are filter buttons for "Domain", "File type", "Date range", and "Operators". A "Search Tip" box provides advice on using comparison language like "better" or "than" and suggests using operators like "AND" for less biased results. Two search results are displayed, each with a title, a URL, a snippet, and a metadata table.

Microsoft Teams Search Coach

are dogs better than cats?

Domain File type Date range Operators

Search Tip
Searches that use comparisons or language like *better*, *than* can result in opinions that sound like facts. Sometimes an operator can help. For example, *is sugar good for you?* will mostly return results that say it is good. *Sugar AND health* returns less biased results.

Why Dogs Are Better Than Cats - The Spruce Pets
<https://www.thesprucepets.com/reasons-dogs-are-better-than-cats-1118371>
In many people's opinion, dogs are better than cats. Dogs are more trainable, use the bathroom outside, can protect you, and promote a more active lifestyle. Having a dog has many benefits that make it better than havin...

| | | |
|-------------|---------------------|--------------|
| Reliability | Domain | Last crawled |
| Unknown | thespr...cepets.com | Today |

Dogs Are Better Than Cats. Yes, Really. Here's Why. | PawTracks
<https://www.pawtracks.com/dogs/dogs-are-better-than-cats/>
Dogs are much better friends than cats — they crave affection, love snuggles and home offices, and don't launch covert "attacks" Dogs are much better housemates. They're trainable, have far better etiquette, and use the...

| | | |
|-------------|---------------|--------------|
| Reliability | Domain | Last crawled |
| Unknown | pawtracks.com | 5 days ago |

Zoekvoortgang

Under Construction

The screenshot shows the Microsoft Teams interface with a search progress window open. The window title is "Search Progress" and it has a "Close" button in the top right. The main content area is titled "Summary" and contains the following information:

- Assignment:** "Is Facebook healthy for you?"
- Text:** "Use Search Coach to research whether the social media platform, Facebook, is healthy for people? Has the recommendation changed over time? Do different types of sites make different recommendations?"
- Goal:** "Collect 5 sources and annotate each with a justification and citation."
- Reflection:** "After completing this assignment, these are my thoughts on which searches were most effective."
- Text box:** "The searches that used operators produced a focused set of results. I spent a lot less time sifting through sites that weren't relevant."
- Table:** A table with 4 columns: Search term, Filters used, Opened websites, and Saved sources.

| Search term | Filters used | Opened websites | Saved sources |
|------------------------|--------------|-----------------|---------------|
| facebook | | 0 | 0 |
| is facebook bad? | EDU PDF | 0 | 1 |
| facebook mental health | ORG | 1 | 1 |
| social media bad? | | 0 | 1 |

On the right side of the window, there is a sidebar with the following elements:

- Navigation arrows and user name: "Cline, Christie"
- Section: "Student work" with subtext "Not turned in View history"
- Search Progress card with a search icon and "Search Progress" text.
- Section: "Feedback" with a text box containing "Great job with your research, Christie! Just remember!"
- Section: "Points" with a progress bar and "/ 100"
- A blue "Return" button.

Zoekvoortgang

Under Construction

The screenshot shows the Microsoft Teams interface with a search progress window open. The window displays a table of search results and a detailed view of a saved source.

| Search term | Filters | Opened websites | Saved sources |
|-----------------------------|--|-----------------|---------------|
| what do astronauts eat | EDU, ORG PDF | 0 | 1 |
| astronaut daily diet | PPT, PDF | 0 | 1 |
| astronaut daily diet | Last 24 Hour DOC | 1 | 1 |
| space food | ORG, GOV, EDU, AU, FR PPT, PDF Oct 25 2022 to Oct 26 2022 | 0 | 1 |
| does space food go bad | | 2 | 1 |
| how many times to astronaut | EDU PDF | 2 | 1 |

[See all searches](#)

Saved sources
what do astronauts eat

Eating in Space | NASA
www.nasa.gov/audience/foreducators/stem-on-...

| | | | |
|----------------------|--------------------|----------------------------|--------------------------|
| NewsGuard 100/100 | Domain nasa.gov | Last crawled 2 days ago | Country United States |
|----------------------|--------------------|----------------------------|--------------------------|

I saved this site because nasa is the government

Zoekvoortgang

Under Construction

The screenshot shows the Microsoft Teams interface with a search progress overlay. The overlay is titled "Search Progress" and features a "Close" button in the top right. The main content area is for "Christie Cline" and displays an "Assignment summary" with four statistics: 6 Searches, 9 Saved sources, 21 Links opened, and 3 Search sessions. Below this, there are sections for "Assignment instructions" (Astronaut food), "Reflection" (Look at your different searches...), and "Searches". On the right side, there is a sidebar for "Cline, Christie" showing "Student work" (Not turned in, View history), a "Search Progress" button, a "Feedback" section, and a "Points" section (/ 100) with a "Return" button.

Microsoft Teams

Search

Search Progress

Close

Christie Cline

Assignment summary

| | | | |
|----------|---------------|--------------|-----------------|
| 6 | 9 | 21 | 3 |
| Searches | Saved sources | Links opened | Search sessions |

Assignment instructions

Astronaut food

Search the internet to find out details about how astronauts survive in space. What do they eat? How many times a day do they eat? How do they prepare the food? How is their food different or similar to what they eat on Earth?

Reflection

Look at your different searches. Which ones were most effective? Why?

The searches that used operators produced a focused set of results. I spent a lot less time sifting through sites that weren't relevant.

Searches

Cline, Christie

Student work

Not turned in [View history](#)

Search Progress

Feedback

Points

/ 100

Return

Zoekvoortgang

Under Construction

The screenshot shows the Microsoft Teams interface with a search progress window open. The window displays a table of search results and a preview of a saved source.

| Search term | Filters | Opened websites | Saved sources |
|-----------------------------|--|-----------------|---------------|
| what do astronauts eat | EDU, ORG PDF | 0 | 1 |
| astronaut daily diet | PPT, PDF | 0 | 1 |
| astronaut daily diet | Last 24 Hour DOC | 1 | 1 |
| space food | ORG, GOV, EDU, AU, FR PPT, PDF Oct 25 2022 to Oct 26 2022 | 0 | 1 |
| does space food go bad | | 2 | 1 |
| how many times to astronaut | EDU PDF | 2 | 1 |

[See all searches](#)

Saved sources

what do astronauts eat

Eating in Space | NASA
www.nasa.gov/audience/foreducators/stem-on...

| | | | |
|----------------------|--------------------|----------------------------|--------------------------|
| NewsGuard 100/100 | Domain nasa.gov | Last crawled 2 days ago | Country United States |
|----------------------|--------------------|----------------------------|--------------------------|

I saved this site because nasa is the government

Zoekvoortgang

Under Construction

The screenshot displays the Microsoft Teams interface. On the left is a navigation pane with options like Activity, Chat, Teams, Assignments, Calendar, Calls, Files, Channels, and Apps. The main area is titled 'Insights' and shows a search for 'Search Coach (Preview) for 4th Grade'. A search bar contains 'Search student' and a filter 'Since class creation'. Below this, a table shows results for 'tasteofhome.com' with 2 items and 0 items. A 'Show more' link is present. The bottom section, 'Common search terms', features a word cloud with 'food' as the largest term, surrounded by other words like 'restaurant', 'menu', 'space', 'nasa', 'breakfast', 'astronaut', 'dinner', 'ufo', 'station', 'on', 'buzz', 'lightyear', 'eat', and 'nutrition'.

Generatieve AI in Leesvoortgang

Reading Progress for Language Arts

Search student All genres All reading levels Since class creation

Average words per minute: 103 +5

Average accuracy rate: 80% +13%

Assignments per student: 3.23 +1

Challenging words

Generate passage

Average accuracy rate

| Assignment | Level | Genre | Due | Reading accuracy |
|--------------------------|-------|-------------|--------|---|
| Literature reading task | 400L | Non-fiction | MAR 14 | <div style="width: 100%;"><div style="width: 80%;"></div></div> |
| Interview reading task | 400L | Fiction | MAR 13 | <div style="width: 100%;"><div style="width: 85%;"></div></div> |
| Short story reading task | 400L | Non-fiction | MAR 12 | <div style="width: 100%;"><div style="width: 90%;"></div></div> |

Generatieve AI in Leesvoortgang

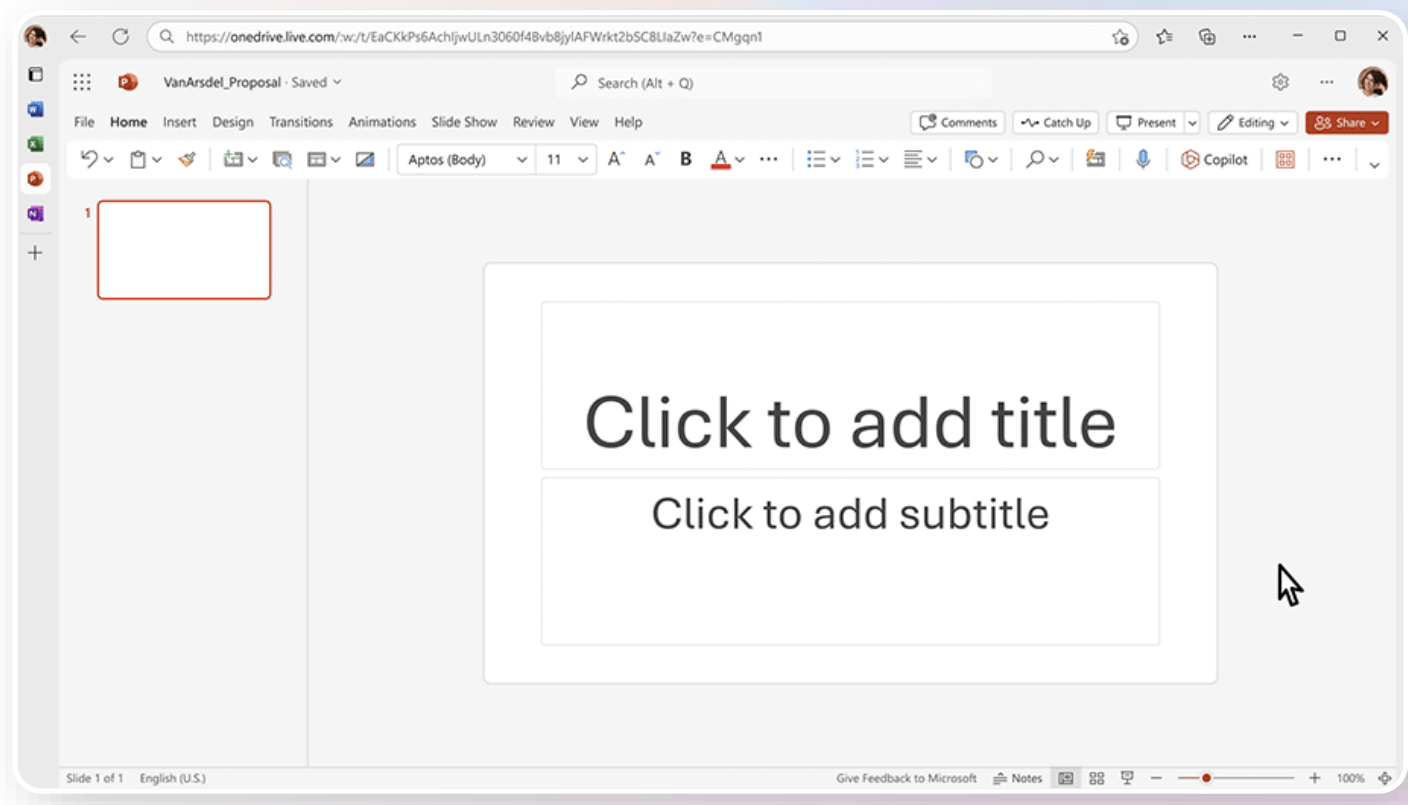


Copilot in PowerPoint

Copilot helps you turn your ideas into stunning presentations.

Some example prompts you can ask **Copilot**:

- Create a five-slide presentation based on a Word document, include relevant stock photos.
- Consolidate this presentation into a three-slide summary.
- Reformat these three bullets into three columns, each with a picture.

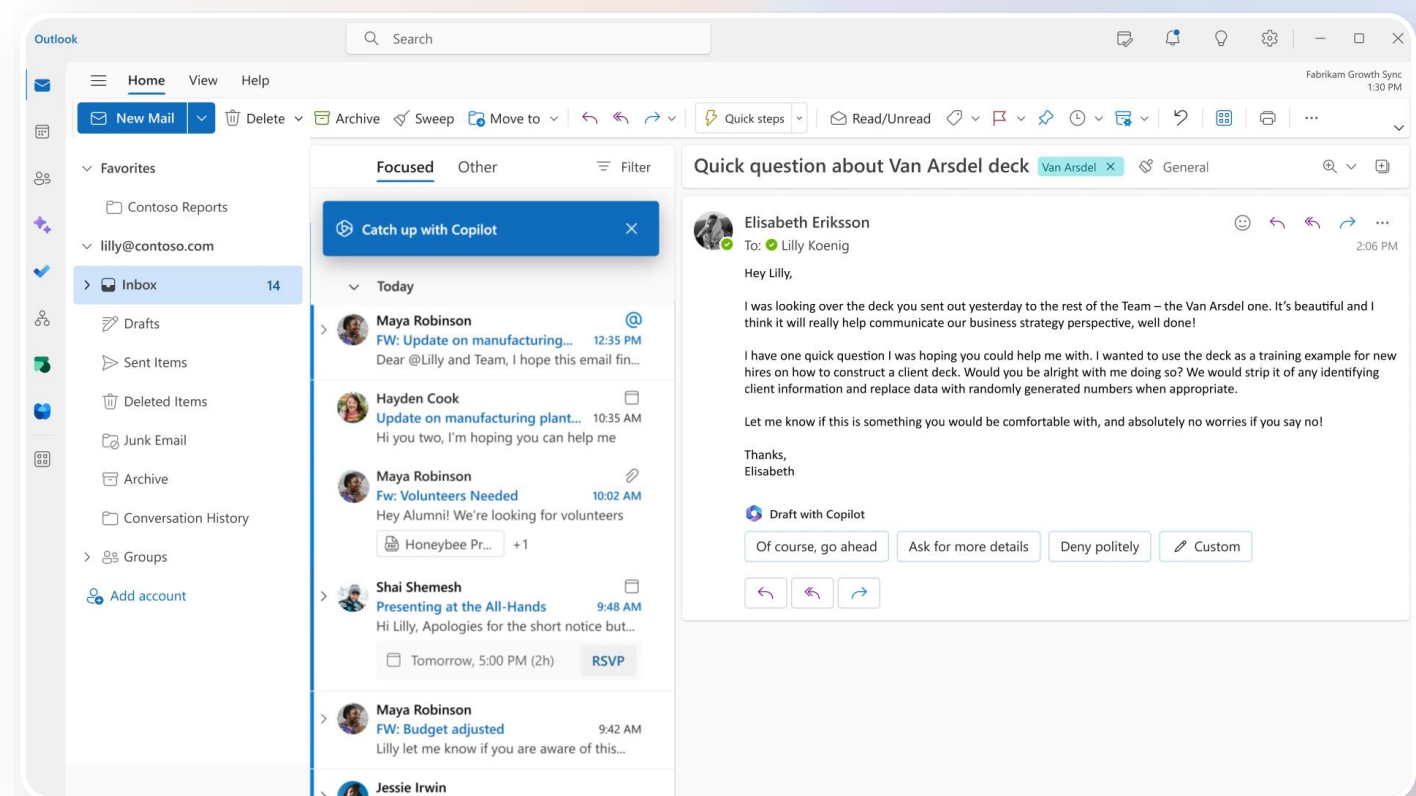


Copilot in Outlook

Copilot works with you in cleaning your inbox and messages.

Some example prompts you can ask **Copilot**:

- Summarize the emails I missed while I was out. Flag important items.
- Draft a response thanking them and asking for more details; shorten this draft and make the tone professional.
- Invite everyone to a “lunch and learn” about new product launches next Thursday at noon

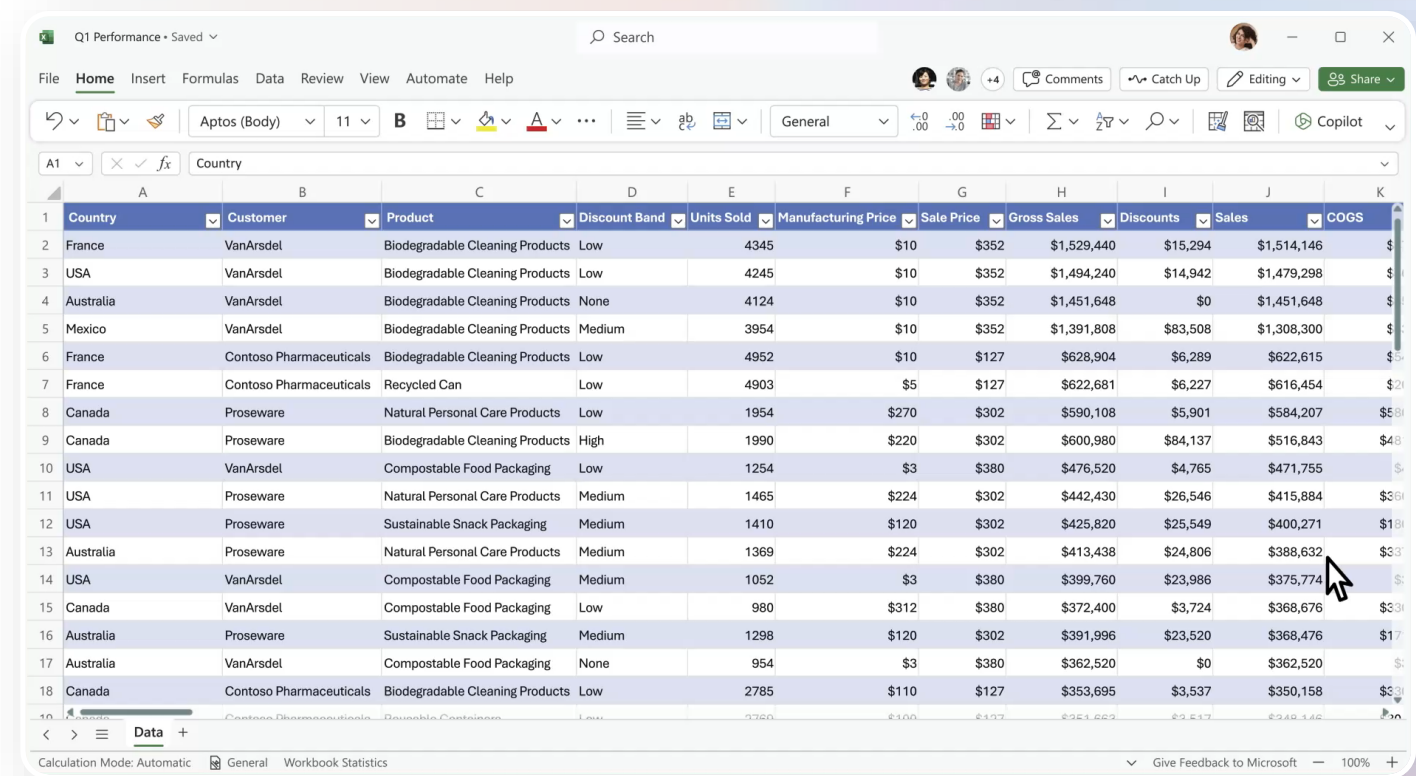


Copilot in Excel

Copilot works alongside you to help analyze and explore your data.

Some example prompts you can ask **Copilot**:

- Give a breakdown of the sales by type and channel. Insert a table.
- Project the impact of [*variable*] and generate a chart to help visualize.
- Model how a change to the growth rate for [*variable*] would impact my gross margin.



| | Country | Customer | Product | Discount Band | Units Sold | Manufacturing Price | Sale Price | Gross Sales | Discounts | Sales | COGS |
|----|-----------|-------------------------|---------------------------------|---------------|------------|---------------------|------------|-------------|-----------|-------------|------|
| 2 | France | VanArsdel | Biodegradable Cleaning Products | Low | 4345 | \$10 | \$352 | \$1,529,440 | \$15,294 | \$1,514,146 | \$ |
| 3 | USA | VanArsdel | Biodegradable Cleaning Products | Low | 4245 | \$10 | \$352 | \$1,494,240 | \$14,942 | \$1,479,298 | \$ |
| 4 | Australia | VanArsdel | Biodegradable Cleaning Products | None | 4124 | \$10 | \$352 | \$1,451,648 | \$0 | \$1,451,648 | \$ |
| 5 | Mexico | VanArsdel | Biodegradable Cleaning Products | Medium | 3954 | \$10 | \$352 | \$1,391,808 | \$83,508 | \$1,308,300 | \$ |
| 6 | France | Contoso Pharmaceuticals | Biodegradable Cleaning Products | Low | 4952 | \$10 | \$127 | \$628,904 | \$6,289 | \$622,615 | \$ |
| 7 | France | Contoso Pharmaceuticals | Recycled Can | Low | 4903 | \$5 | \$127 | \$622,681 | \$6,227 | \$616,454 | \$ |
| 8 | Canada | Proseware | Natural Personal Care Products | Low | 1954 | \$270 | \$302 | \$590,108 | \$5,901 | \$584,207 | \$ |
| 9 | Canada | Proseware | Biodegradable Cleaning Products | High | 1990 | \$220 | \$302 | \$600,980 | \$84,137 | \$516,843 | \$ |
| 10 | USA | VanArsdel | Compostable Food Packaging | Low | 1254 | \$3 | \$380 | \$476,520 | \$4,765 | \$471,755 | \$ |
| 11 | USA | Proseware | Natural Personal Care Products | Medium | 1465 | \$224 | \$302 | \$442,430 | \$26,546 | \$415,884 | \$ |
| 12 | USA | Proseware | Sustainable Snack Packaging | Medium | 1410 | \$120 | \$302 | \$425,820 | \$25,549 | \$400,271 | \$ |
| 13 | Australia | Proseware | Natural Personal Care Products | Medium | 1369 | \$224 | \$302 | \$413,438 | \$24,806 | \$388,632 | \$ |
| 14 | USA | VanArsdel | Compostable Food Packaging | Medium | 1052 | \$3 | \$380 | \$399,760 | \$23,986 | \$375,774 | \$ |
| 15 | Canada | VanArsdel | Compostable Food Packaging | Low | 980 | \$312 | \$380 | \$372,400 | \$3,724 | \$368,676 | \$ |
| 16 | Australia | Proseware | Sustainable Snack Packaging | Medium | 1298 | \$120 | \$302 | \$391,996 | \$23,520 | \$368,476 | \$ |
| 17 | Australia | VanArsdel | Compostable Food Packaging | None | 954 | \$3 | \$380 | \$362,520 | \$0 | \$362,520 | \$ |
| 18 | Canada | Contoso Pharmaceuticals | Biodegradable Cleaning Products | Low | 2785 | \$110 | \$127 | \$353,695 | \$3,537 | \$350,158 | \$ |

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