



2023-2024

The Binas Halev Bais Yaakov

Shark Tank: Business Idea Competition

Overview | Rules | Requirements

"Think Big. Start Small."
- Peter Drucker



A LETTER FROM Our Head of School

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Dear Students,

In the realm of notable figures, one finds the likes of Elon Musk, Bill Gates, and Steve Jobs, individuals who have left a considerable imprint on our world. Yet, it's essential to recognize that impactful entrepreneurial journeys are not exclusive to widely recognized names. Shimon and Rubin Kolyakov, the founders of Torah Anytime, a global platform that has made its mark across eight continents. The value of this innovative business idea has prove to be more than financially successful, but what they have given to the world is priceless

Now, you may wonder about the relevance of these renowned names to your own aspirations. The answer is straightforward: involvement in the Shark Tank Entrepreneur Competition fosters a skill set essential for future success.

The value of successful businesses extends beyond financial prosperity. Enterprises like SpaceX, Microsoft, Apple, and Torah Anytime have not only generated wealth but have also instigated transformation across industries and provided employment opportunities.

Why collision harm prevention, you ask? The Torah reminds us of our responsibility to protect the well-being of others, and what better way to embody this principle than by leveraging your physics knowledge to save lives and prevent accidents? Whether it's in the context of road safety, industrial environments, or everyday scenarios, your innovative solutions could make a profound difference.

By participating in the Shark Tank Entrepreneur Competition, you not only pursue your dreams but also contribute to a world in need of fresh ideas, innovation, and a new generation of leaders. While your journey may not command immediate recognition, it holds the potential to sculpt the future profoundly.

Don't underestimate the power of your ideas and the impact they can have on the world. Join us in this incredible adventure, and together, we can pave the way for a brighter future.

May your efforts be guided by kindness, compassion, and the wisdom of Torah.

Sincerely,

Sarah Grazi
Binat Halev Bais Yaakov, Head of School



BHL Shark Tank Collision Project

Overview

SHARK TANK COLLISION PROJECT: NEWTONIAN PHYSICS AND PROTECTIVE SOLUTIONS

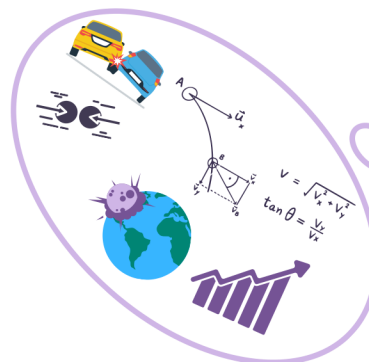
In this project, students will use their knowledge of Newtonian Principles of Physics to create a product idea that could one day grow into a profitable, invaluable, and lucrative business.

PROJECT OBJECTIVE:

To create a product idea and prototype for a collision or impact problem. The product must be feasible for a student to create, avoiding complexities that would require extreme expertise in manufacturing. It should be designed with the understanding that students have access to standard tools, materials, and a reasonable level of guidance. The emphasis should be on innovative yet achievable solutions within the scope of a student project.

All Participants Will Create:

- 3D Print Prototype
- Research Display Board
- Business Plan
- Business Pitch Presentation
- A Social Media Plan





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HOW TO BEGIN

- 1. Topic Exploration:** You will explore Newtonian physics beyond just making things move. Investigate concepts related to energy, motion, and forces, with a focus on collisions and impacts.
- 2. Problem Identification:** Identify real-world scenarios where individuals or objects need protection from collisions. Be creative and think about scenarios such as secure baby strollers, improved shopping carts, high-impact sports helmets, and innovative shoe designs for reducing running impact.
- 3. Research:** Dive deep into the physics behind these scenarios. Understand how Newton's laws apply to the specific situations you've chosen. Explore relevant concepts and gather data.

DESIGNING YOUR PROTOTYPE

Design Phase: Based on your research, start designing solutions for the identified problems. Sketch out your ideas, create a prototype, and outline the design principles you're incorporating.

Collaboration: At key points in the project, consult with subject matter experts, such as industrial designers, fabricators, or engineers. Seek their input and feedback to refine your product designs.

You will need to create a 3-D prototype to display with your project. Requirements as follows:

Accurate Representation: The prototype should accurately represent your design concept. It should showcase the key features and functions of your protective solution as described in your project report.



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Functional Components: Ensure that the essential components or mechanisms of your protective solution are functional in the prototype. If it's a helmet, for example, the protective padding and securing mechanisms should work as intended.

Material Selection: Choose appropriate 3D printing materials that align with the purpose of your prototype. Consider factors like durability, flexibility, and safety. Explain your material choices in your report.

Scale and Size: The prototype should be scaled appropriately to match the real-world application. Make sure it's not too small or too large compared to the intended use.

Clear Labeling: Label different parts or sections of the prototype clearly. This helps viewers understand the various elements of your design and how they function together.

Safety Considerations: Ensure that the prototype is safe to handle, especially if it includes moving parts or potential sharp edges. Safety should be a priority in the design.

Aesthetics: While the primary focus is functionality, a well-presented prototype with attention to aesthetics can enhance its overall impact. Consider surface finishes or color choices that are relevant to your project.

Testing Readiness: The prototype should be ready for testing and evaluation. Be prepared to conduct tests, measurements, or simulations to demonstrate how it performs its protective function.

STRUCTURING THE DISPLAY BOARD

Compile all your findings, designs, and research into a visually engaging display board. Ensure your report includes clear explanations, diagrams, and data visualizations where necessary.



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Including precise measurements and a clear explanation of the physics principles involved in your project report is essential. Here's how you can structure this aspect of your report:

- **Distances:** Include measurements of distances relevant to your project. For example, if you're designing a safer baby stroller, measure the dimensions of the stroller, the height of the safety features, and the distance it can safely stop after applying brakes.
- **Times:** Record time-related data, such as the time it takes for your protective solution to react in a collision scenario. Measure the time it takes for the safety feature to engage, like an airbag deploying in a car collision.
- **Forces Involved:** Quantify the forces at play. If you're designing a helmet for high-impact sports, measure the force exerted on the helmet during impacts using instruments like force sensors or accelerometers.

It is essential to include an explanation of the role of these principals of mechanics and motion in making your solution possible:

- **Newton's Laws:** Clearly explain how Newton's laws of motion apply to your project. For instance, if you're designing a braking system for a shopping cart, describe how Newton's first law relates to the initial motion and how the second law relates to applying force to stop it.
- **Conservation of Energy:** Discuss how the principle of conservation of energy applies. If your project involves energy-efficient designs, explain how energy is conserved, transformed, or dissipated.
- **Circular Motion:** If circular motion is relevant, describe how it's utilized. For instance, in the context of a shoe design that reduces impact during running, explain the principles of circular motion and how they affect the design of the sole or cushioning.



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- **Data Presentation:** Present your measurement data and principles in an organized and visually appealing manner within your report. Use tables, graphs, charts, and diagrams to illustrate your findings and make it easier for readers to grasp the information. However, the explanation and wordage should remain in your script,

FORMULATING YOUR BUSINESS PLAN

Proper headings should be used to structure the information provided. The plan should be strictly limited to 3-7 pages, along with visuals. Cover pages are not included in the page count. If a submission exceeds this limit, only the first 7 pages will be assessed. At a minimum, the business plan should address the following questions, but students are encouraged to include any other relevant information they deem necessary.

- What is the Mission of your business? What are your key values and how will you achieve them?
- What is your product/market fit and addressable opportunity?
- What research have you conducted with prospective customers on your business product or service? What did you learn from this research?
- Who is your competition and why?
- What plans will you need to put in place to be able to develop your product or service?
- What is your marketing plan for customer acquisition?
- What help will you need to implement your Go-To-Market Strategies?
- How much capital will you need to start up and run for the first year and what will it be used for? Be specific about what exactly you are asking for: rent, employees, technology, marketing expenses



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- How much will your product cost to produce? (list price for all materials and amount of time and labor) How many will you produce for your first year of sales? What is the total production cost (price per item x total amount to produce)?
- What are the venture's biggest risks and how will you address them?
- How much do you intend to sell your product for? How many do you anticipate you will sell in the first year, how did you come to these numbers?
- How much are you asking your investors to initially invest in your start up investment?

PRESENTING YOUR BUSINESS PITCH

Prepare a presentation summarizing your findings and proposed solutions. Explain the physics principles involved and how they are applied in your designs. your presentation should include the interpretation of all of your measurement data and explain how the principles of mechanics and motion are applied in your project. Discuss the significance of your findings and how they contribute to the effectiveness of your protective solutions.

- No pitch should be longer than five minutes. Students will be stopped at the five minute mark and will not continue.
- Students are expected to have a prototype for their demonstration.
- Students are required to have prepared a script and produce a printed copy for the judges to review.



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CAMPAINING ON SOCIAL MEDIA

Showcase the development process of your business from inception to the final pitch.

Generate curiosity and anticipation for your business idea:

- Teaser Video Reel: Create a short, intriguing video reel that hints at what your business idea is about.
- Infographic Explainer: Design an infographic that breaks down your business idea into its core components.
- User Testimonials: If possible, gather feedback from potential users or customers and share their thoughts.

Keep feeding your story with posts:

- Genesis Story: Share the story of how your business idea was born. What inspired you? What problem were you passionate about solving?
- Sketch to Reality: Post images or short videos showing how your initial concept transformed into the final product or service.
- Learning Curves: Share the lessons you've learned along the way, from setbacks to breakthroughs.
- Countdown to Competition: Begin a daily countdown to the competition, building anticipation.

Showcase the progress and the passion behind your business idea:

- Entrepreneur of the Week: Highlight one aspect or person involved in the development of your business idea.
- Expert Insights: Collaborate with experts who can offer advice and tips related to your industry or business idea.
- Meme Moments: Use memes to share light-hearted moments from your entrepreneurial journey.

Engagement Strategy:

- Encourage your followers to share their own entrepreneurial journeys and the challenges they've overcome.
- Host "AMA" sessions, where your followers can ask questions about your journey and the competition.



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Rules, Terms, & Conditions

The purpose of the Binas Halev's rules, terms and conditions are to provide equality of opportunity while also promoting a positive and impactful learning experience for all participants.

BASIC RULES

- Students are to work as individuals.
- The submission/presentation does not disclose any second party intellectual property or violate any existing copyright protections
- Students who do not contribute adequately to the project will not receive credit on the assignment and will not partake in any competition earnings (at the discretion of administration).
- Any form of academic dishonesty, including plagiarism or the unauthorized use of others' work, is strictly prohibited.
- Students must submit original business plans in their own words. If using content from another source, it must be enclosed in quotation marks and properly cited.
- Students who do not adhere to these standards will face disqualification and/or a point reduction on their final grade.
- Students are encouraged to employ their creative freedom to effectively convey their concept. This can involve the use of prototypes, imagery, videos, audio elements, motion graphics, and more.
- The Q&A session is limited to 3 minutes, with only the students who delivered the pitch eligible to provide responses during this segment of the competition



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- It's essential for students to be ready to respond to questions from the judges following their pitch.
- All students are required to participate in the pitch presentation.

SOCIAL MEDIA RULES

To ensure a consistent and responsible approach to your social media marketing campaign for your business idea, it's important to follow a set of rules. These guidelines will help maintain professionalism and build a strong online presence for your venture.

1. Use Only the Company Name:
 - Students must exclusively use the company name when posting on social media. This ensures that the brand remains the focus and not individual identities.
2. No Personal Videos:
 - Students are not allowed to post videos featuring themselves personally. The emphasis should be on the business idea and its development.
3. Weekly Posts & Quality:
 - Students are required to create and share at least one post every week. These posts should align with the established campaign phases and content strategy.
 - All posts must maintain high quality in terms of visuals and content.
4. Respect Copyright and Privacy:
 - Students must respect copyright laws and obtain proper permissions when using others' content. Additionally, they should respect individuals' privacy and seek consent before posting their images or personal information.
5. Professional Language:
 - Use professional and respectful language in all posts and interactions with the audience. Avoid any offensive or inappropriate content.
6. Accuracy and Honesty:
 - Provide accurate information about the business idea, its development, and achievements. Honesty is key to building trust with your audience.
7. Avoid Controversy:
 - Refrain from engaging in controversial or sensitive topics unrelated to your business idea. Keep the focus on your entrepreneurial journey and the competition.
8. Branding Guidelines:
 - Follow the established branding guidelines for your business idea. This includes using the company's logo, color scheme, and visual identity consistently across all posts.
9. Promotion Limits:
 - While it's essential to promote your business idea, avoid excessive self-promotion. Balance your posts with informative, engaging, and valuable content.
10. Track Progress and Document:
 - Keep track of your social media analytics to assess the effectiveness of your campaign. Adjust your strategy based on the results.



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The Competition

The competition will consist of two rounds. Everyone is included in Round 1, while only the top four competitors will move into Round 2.

ROUND 1

- All students will participate.
- All students must have a physical display board for presentation purposes. It should comprehensively address the key components of the student's business plan and collision research details. The display board should be aesthetically pleasing, well thought out, informative, and professional.
- Visitors will come to inspect the projects, cast their votes, and ultimately decide the victors of the initial round.

ROUND 2

- The top four students from round one will participate.
- Students will present their pitch and display board to the judges.
- Pitch may not exceed the five minute mark.
- All business plans, pitches, and presentations (including responses to questions) will be evaluated based on *feasibility, *creativity, and *advancement possibility.

*Feasibility pertains to "the extent to which the idea can be practically implemented, along with the Students 's capability to execute the idea and establish a strong position in the intended market(s)." Ideas relying on non-existent technologies (e.g., teleportation) will be assessed as having low feasibility.

*Creativity is recognized for imagination, determination, enthusiasm, narrative skills, and other intangibles that are believed to have the potential to impact the viability and expansion prospects of the enterprise.

*Advancement potential refers to "the probable ease of scaling the business and the ultimate size it may achieve in terms of revenue and profitability."



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THE PRIZES



\$500



\$180



\$50



Instagram

SHARK

FOLLOW US TO VOTE ON STUDENT PROJECTS, SEE UPDATES, AND JOIN SHARK TANK EVENTS.

Sponsors

YOUR LOGO
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THANK YOU TO EVERYONE WHO MADE THIS POSSIBLE FOR BINAS HALEV STUDENTS AND FOR THE NEXT BRIGHT GENERATION OF KLAL YISROEL.