

EdGame – MVP Bill of Materials v2.0

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Status: Ready to Order

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Lean BoM for a 2-3 person team building EdGame MVP. Aligned with the phased architecture strategy: start simple with Supabase + Vercel, scale only when usage demands it.

Executive Summary

Category	Monthly Cost	6-Month Total	Notes
AI Coding Tools	\$240	\$1,440	Cursor, Claude, Copilot
Cloud Infrastructure	\$200	\$1,200	Supabase Pro + Vercel Pro
Development Tools	\$50	\$300	Essential SaaS only
Third-Party Services	\$60	\$360	Email, analytics, error tracking
Monthly Total	~\$550/month	\$3,300	
One-Time Setup		\$150	Domain, legal basics
Game Art Contractor	\$3,000/month	\$18,000	Part-time asset creation
6-Month MVP Budget		~\$21,500	Excluding founder salaries

1. AI-Assisted Development Tools

The core of modern development — these tools dramatically accelerate a 2-person team.

Tool	Plan	Monthly Cost	Annual Cost	What We Get
Cursor Pro	Pro	\$20/user	\$240/user	AI-native IDE, Claude/GPT integration, codebase-aware completions, multi-file edits
Claude Pro	Pro	\$20/user	\$240/user	Long-context reasoning for architecture decisions, documentation, debugging
GitHub Copilot	Individual	\$10/user	\$100/user	Inline completions in any editor/IDE
v0 by Vercel	Free tier	\$0	\$0	UI component generation, React code from descriptions
Bolt.new	Free tier	\$0	\$0	Full-stack app scaffolding, rapid prototyping

Per-developer cost: ~\$50/month for the AI toolkit

For 2 founders: ~\$100/month total (both need Cursor + Claude; Copilot optional backup)

Why These Tools

- **Cursor Pro** is our main coding environment — better than VS Code + Copilot alone because of multi-file edit capabilities
- **Claude Pro** handles complex reasoning: system design, debugging gnarly issues, writing detailed specs
- **v0 / Bolt.new** free tiers are sufficient for scaffolding — don't pay until we hit limits

2. Cloud Infrastructure (Phase 1)

Recommended Stack: Supabase + Vercel

Service	Plan	Monthly Cost	What We Get	Migration Trigger
Supabase	Pro	\$25	PostgreSQL, Auth, Realtime, Storage, 8GB DB, 50GB bandwidth, 500K auth users	>50K MAU or >8GB data
Vercel	Pro	\$20	Unlimited deployments, 100GB bandwidth, Edge Functions, Analytics	>100K requests/day sustained
Cloudflare	Free	\$0	DNS, DDoS protection, CDN for assets	Never (keep on free tier)
Upstash Redis	Free	\$0	10K commands/day — rate limiting, sessions	>10K commands/day
Total		\$45/month		

Why This Stack

1. **Supabase Pro (\$25)** — PostgreSQL + Auth + Realtime in one managed service. No DevOps needed. RLS handles authorization at the database level.
2. **Vercel Pro (\$20)** — Automatic deployments from GitHub, edge functions for API routes, built-in analytics. Better DX than AWS.
3. **Cloudflare Free** — No-brainer for DNS and CDN. Free tier handles everything we need for years.
4. **Upstash Free** — Redis for rate limiting and session caching. Free tier is generous for MVP scale.

Migration Triggers (When to Scale Up)

Trigger	Current Limit	Action
>50K MAU	Supabase Pro	Upgrade to Supabase Team (\$599/mo)
>5K concurrent	Supabase Realtime	Add dedicated Realtime server
>100K requests/day	Vercel Pro	Upgrade to Vercel Enterprise or migrate API to AWS

Multiplayer launch	N/A	Add SpacetimeDB or Colyseus for game state sync
>100 schools	Supabase Pro	Consider self-hosted Supabase on AWS for compliance

3. Development Tools

Tool	Plan	Monthly Cost	Annual	Purpose
GitHub	Team	\$4/user	\$48/user	Repos, Actions (CI/CD), Issues
Linear	Free	\$0	\$0	Project management (better than Jira for small teams)
Figma	Free (Starter)	\$0	\$0	Design, prototyping (upgrade when we hire designer)
Notion	Free	\$0	\$0	Docs, wiki, knowledge base
1Password Teams	Team	\$8 (total)	\$96	Secrets management, shared credentials
Total		~\$16/month		For 2 users

Why These Choices

- **GitHub Team** over free: Private repos, required reviews, Actions minutes for CI/CD
- **Linear free**: Generous free tier, better UX than alternatives
- **Figma free**: Starter plan has 3 files — enough for MVP wireframes
- **1Password**: Non-negotiable for secure credential sharing

4. Third-Party Services

Service	Plan	Monthly Cost	Purpose	Usage Limit
Resend	Free → Pro	\$0 → \$20	Transactional email (assignments, reports)	3K emails/mo free, then \$20
PostHog	Free	\$0	Product analytics, event tracking	1M events/mo free
Sentry	Free	\$0	Error tracking, performance	5K errors/mo free
Stripe	Pay-as-you-go	~\$30	Payment processing (2.9% + \$0.30)	Only pay on transactions
Total		~\$30-50/month		Scale with usage

Email Strategy

- Start with Resend free tier (3K emails/month)
- Covers ~100 teachers × 30 emails/month = MVP scale

- Upgrade to Pro (\$20/month, 50K emails) when we hit the limit

Analytics Strategy

- **PostHog** for product analytics (funnels, retention, feature usage)
- **Supabase Dashboard** for database metrics
- **Vercel Analytics** for web vitals
- **Sentry** for error tracking

All free tiers are sufficient for 10,000+ MAU.

5. Game Development Assets

Game Engine: Phaser 3 (Free, MIT Licensed)

Asset Type	Source	Cost	Notes
2D Game Assets	itch.io packs	\$50-200 one-time	Placeholder art for MVP
UI Kits	itch.io / Figma community	\$0-50	Interface elements
Sound Effects	Freesound.org, Kenney.nl	\$0	CC0 licensed
Music	Uppbeat (free tier)	\$0	Attribution required

Contract Game Artist (Recommended)

Role	Rate	Monthly Hours	Monthly Cost
2D Game Artist (part-time)	\$40-60/hr	50-75 hrs	\$2,000-4,500

Recommendation: Budget \$3,000/month for a part-time contract artist to create:

- Character sprites for 3 environments
- Background art for Math Arena, Chemistry Lab, Physics Sim
- UI elements and icons
- Animation frames

Finding artists:

- Fiverr / Upwork for quick assets
- ArtStation for higher quality
- Game dev Discord communities

6. Domains & Basics

Item	Cost	Notes
Domain (edgame.io or similar)	\$15-50/year	Get it early; .io or .com
Google Workspace	\$7/user/month	Professional email (optional — can use free Gmail)

Legal (privacy policy, ToS)	\$0-500	Termly.io free tier or lawyer review
LLC Formation	\$100-500	State-dependent; use Stripe Atlas or Clerky

MVP minimum: Domain (\$30) + Legal templates (\$0 via Termly) = **~\$30 one-time**

7. 6-Month MVP Budget

Phase 1: Months 1-3 (Build Core MVP)

Category	Monthly	3-Month Total
AI Tools (2 founders)	\$100	\$300
Supabase Pro	\$25	\$75
Vercel Pro	\$20	\$60
GitHub Team	\$8	\$24
1Password	\$8	\$24
Third-party services	\$30	\$90
Game artist (contract)	\$3,000	\$9,000
Monthly total	\$3,191	\$9,573

Milestone: 1 game environment (Math Arena), basic teacher dashboard, 10 school pilots launched

Phase 2: Months 4-6 (Expand & Validate)

Category	Monthly	3-Month Total
AI Tools	\$100	\$300
Supabase Pro	\$25	\$75
Vercel Pro	\$20	\$60
GitHub Team	\$8	\$24
1Password	\$8	\$24
Third-party services	\$50	\$150
Game artist (contract)	\$3,000	\$9,000
Conference (GESS Dubai)	-	\$3,000
Travel (GCC school visits)	\$500	\$1,500
Monthly total	\$3,711	\$14,133

Milestone: 3 game environments, Google Classroom integration, 50+ school pilots, \$20K MRR target

6-Month Total Budget

Category	Total
Infrastructure + Tools	\$1,506
Game Art	\$18,000
Marketing/Travel	\$4,500
One-time setup	\$150
Buffer (10%)	\$2,400
6-Month Grand Total	~\$26,500

Note: This excludes founder salaries. Assumes founders are funded by savings, angel investment, or working part-time. First engineering hire (if seed-funded) would add ~\$8K-12K/month.

8. What We DON'T Need Yet

Save money by avoiding these until they're actually necessary:

Item	Why Not Now	When to Add
AWS/GCP	Supabase + Vercel handles everything at MVP scale	>50K MAU or enterprise compliance requirements
Kubernetes	Massive overkill for a 2-person team	>10 microservices, >100K concurrent users
Data warehouse (Snowflake/BigQuery)	PostgreSQL handles analytics at our scale	>1M events/day, complex cross-school analytics
Kafka/Flink	Real-time streaming unnecessary until massive scale	>100K concurrent game sessions
Full-time designer	Use Figma, v0, and contractor for MVP	After seed funding
Marketing automation (HubSpot)	Spreadsheet + Notion works fine	>1,000 leads to manage
Customer support platform	Email/Slack works at pilot scale	>100 paying customers
SpacetimeDB	Only needed for multiplayer	Phase 2 multiplayer launch

9. Scaling Path

When MVP is validated and we need to scale:

Trigger: \$20K MRR achieved, 50+ paying schools

Addition	Monthly Cost	Why
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Supabase Team	\$599	More connections, dedicated support
First engineer hire	\$10,000	Speed up game environment development
Implementation manager	\$6,000	Handle school onboarding
Post-seed monthly	~\$17,000	

Trigger: Multiplayer launch (Phase 2)

Addition	One-time / Monthly	Why
SpacetimeDB	~\$200/month	Real-time game state sync
Mobile app deployment	\$100/year (App Store)	iOS/Android distribution
Push notification service	\$50/month	Firebase Cloud Messaging

Trigger: 100+ schools, enterprise sales

Addition	Monthly	Why
AWS migration	\$2,000+	Compliance, custom infrastructure
Sales team (2 AEs)	\$20,000	Outbound sales motion
SOC 2 compliance	\$20,000 one-time	Enterprise requirement

10. Alternative: Ultra-Lean Setup

If we're pre-revenue and maximizing runway:

Category	Tool	Monthly Cost
Coding	Cursor Pro only	\$20
Backend	Supabase Free	\$0
Hosting	Vercel Free	\$0
Email	Resend Free	\$0
Analytics	PostHog Free	\$0
Domain	Cloudflare Registrar	~\$1
Total		~\$21/month

This works for prototyping but hits limits quickly:

- Supabase Free: 500MB database, 2GB bandwidth, limited API requests
- Vercel Free: 100GB bandwidth, 10-second function timeout

Recommendation: Don't go ultra-lean. The \$45/month for Supabase Pro + Vercel Pro is worth it for:

- Larger database (8GB vs 500MB)

- More bandwidth
 - Longer function timeouts
 - Better support
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11. Order Checklist

Week 1: Foundation

- ☐ Register domain (Cloudflare Registrar)
- ☐ Create GitHub org, enable Team plan
- ☐ Set up Supabase project (Pro plan)
- ☐ Connect Vercel to GitHub repo
- ☐ Configure Cloudflare DNS
- ☐ Set up 1Password team vault

Week 2: Development Setup

- ☐ Install Cursor Pro (all developers)
- ☐ Subscribe to Claude Pro (all developers)
- ☐ Set up Sentry project
- ☐ Configure PostHog analytics
- ☐ Set up Resend for transactional email

Month 1: Game Development

- ☐ Find and hire contract game artist (Upwork/ArtStation)
- ☐ Purchase placeholder asset packs from itch.io
- ☐ Set up Phaser development environment

Month 3: Pre-Launch

- ☐ Create Stripe account (for future payments)
- ☐ Generate privacy policy (Termly)
- ☐ Set up Google Classroom developer account (LTI integration)

Start lean. Ship fast. Scale when we have users paying us. Every dollar spent before product-market fit is a dollar that could have extended our runway.