HACKATHONS MADE SIMPLE

THE FUN AND EASY WAY TO FOSTER SOCIAL AND EMOTIONAL LEARNING SKILLS WITH YOUR STUDENTS

SMART®

An eBook by SMART

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1. HACKATHONS 4C'S +

A FRAMEWORK FOR BUILDING SOCIAL AND EMOTIONAL LEARNING SKILLS


Create a positive, memorable experience for your students that fosters imagination, collaboration, and builds their social and emotional learning skills.

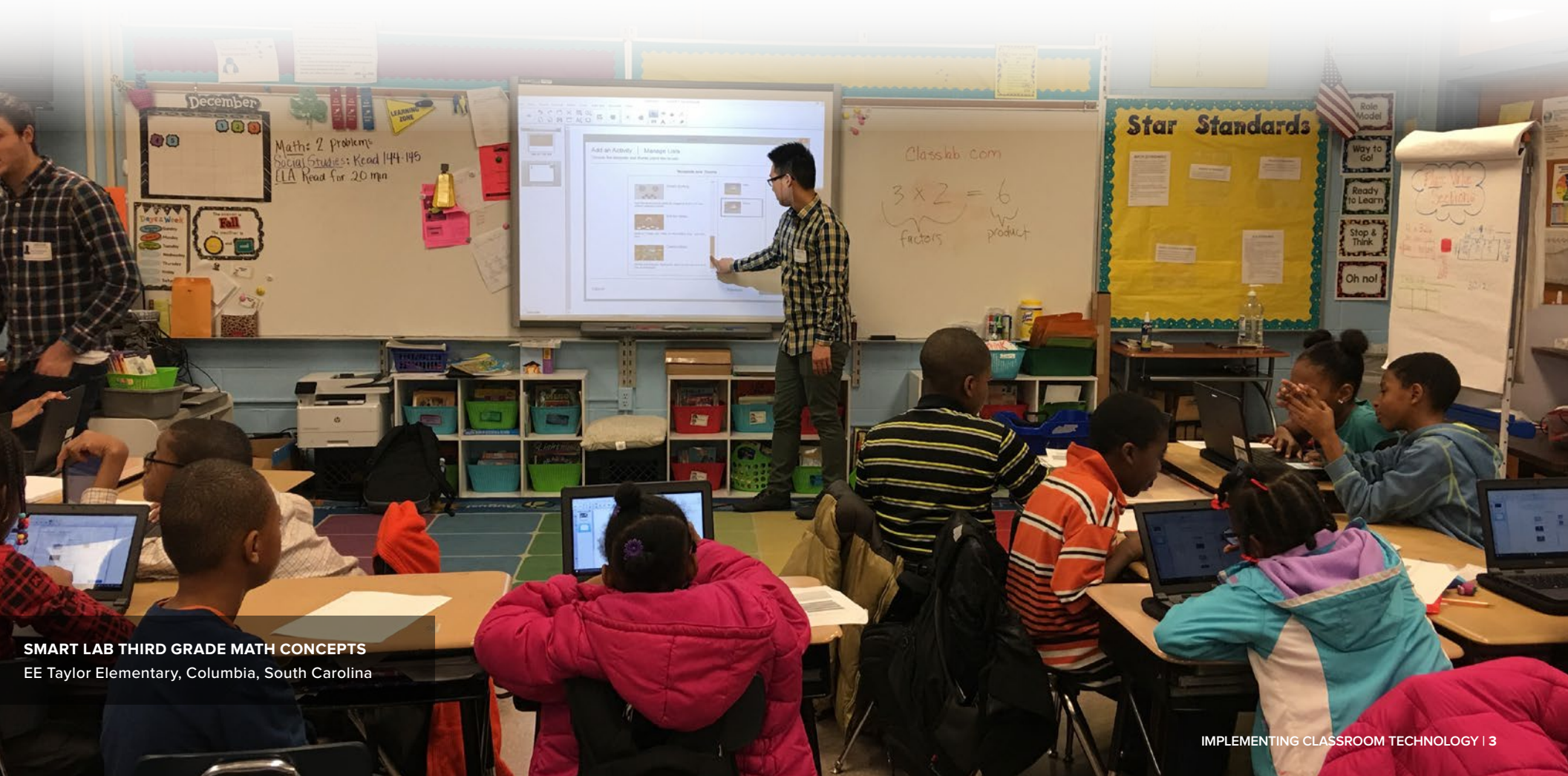
HACKATHONS + 4C'S

As an educator, you know how fast the world is changing and how hard we must work to ensure that our kids are prepared for it. The 4C's (Critical thinking, Creativity, Collaboration, and Communication) are social and learning skills that students need to be prepared for the global, technological world they will enter when they graduate. That world is likely to be very different than the one that exists today. It will be a world where people who have soft skills like creativity, communication, empathy, compassion, problem solving, and working together will shine.

Hackathons are a great way for students to build and flex those 4C muscles.

Maybe you've heard the term hackathon and think it's just for kids interested in tech or coding. But that's not the case. Hackathons are about solving problems together, and having fun.

Not sure how to start? No problem. That's the whole purpose of this guide. We'll show you how simple it can be!



SMART LAB THIRD GRADE MATH CONCEPTS
EE Taylor Elementary, Columbia, South Carolina

2. DESIGN A SIMPLE HACKATHON

SMART LAB THIRD GRADE MATH AND SCIENCE CONCEPTS
C. Hunter Ritchie Elementary, in Warrenton, Virginia

HACKATHONS = MAD 4C SKILL BUILDING!

The best thing about a hackathon is that it can be whatever you want it to be, depending on your goals for your students.

Hackathons can be fast; they can take time.
They can cost money; they can be free.
They can be complicated; they can be simple.
They can be one classroom; they can involve others around the world.
Above all, they should be FUN.

If you have limited time and resources, you can do a lot with what you have on hand: your own creativity, and the unlimited brain power of your students.

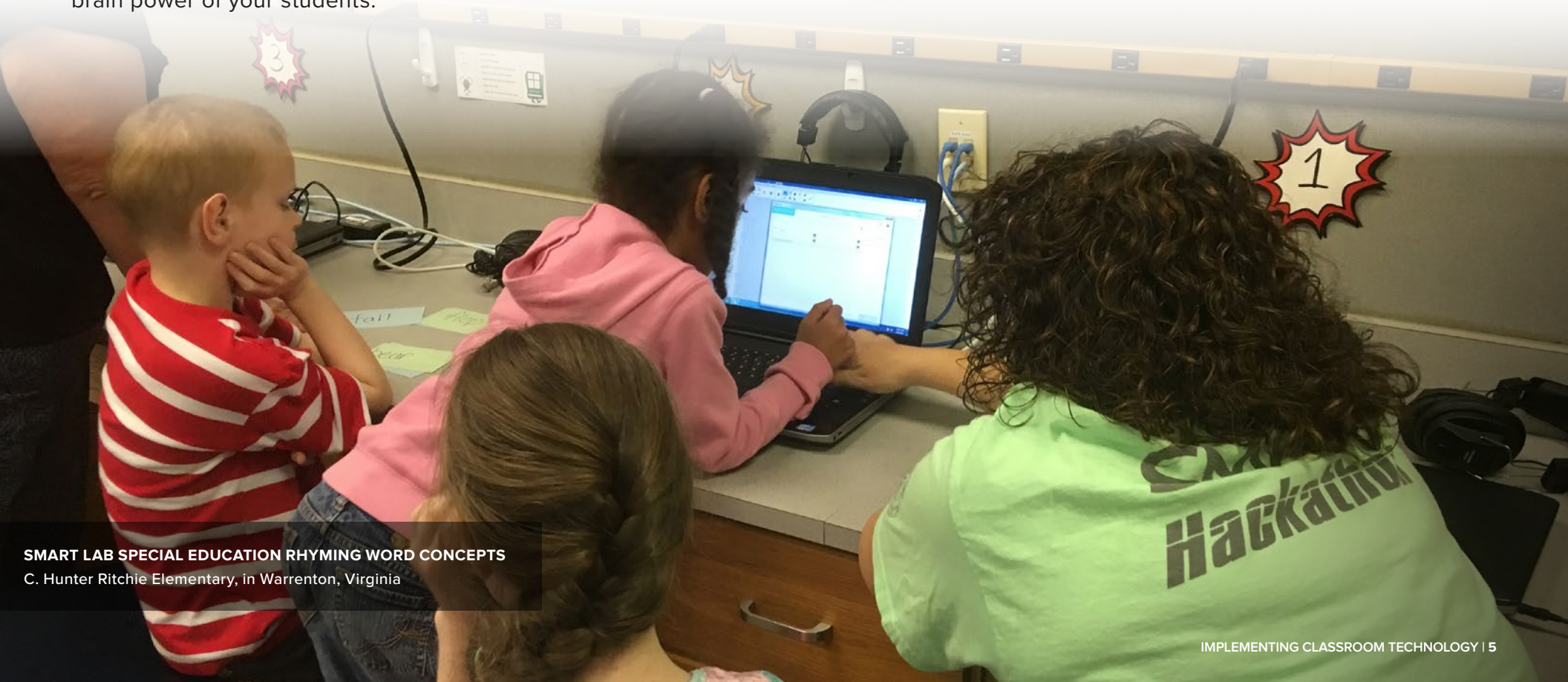
ASSIGNMENT: SOLVE A PROBLEM

What problem do you want your students to solve? How might their ideas help your classroom, your school—even the entire community?

FIRST THING'S FIRST: decide on a theme, based on grade level.

Coincide your theme with a unit you are teaching or an initiative within the school. For instance, maybe your school is working on a recycling initiative. Give your students the assignment of figuring out how to make it a success. Perhaps you're teaching about issues people face in undeveloped countries, like a lack of electricity. Have your students identify ways students in those countries can still study and read at night.

You'll be amazed by what your students dream up!



SMART LAB SPECIAL EDUCATION RHYMING WORD CONCEPTS
C. Hunter Ritchie Elementary, in Warrenton, Virginia

SMART LAB FIFTH GRADE MATH AND SCIENCE CONCEPTS
Teacher Hackathon — Camelot Elementary, San Antonio, Texas

FIGURE OUT THE GOALS

Decide what real-world skills you want your students to get from the experience and incorporate them into the event.

Set realistic goals so students know what success looks like. Consider putting goals around working together (flexing their collaboration and communication skills), completing their project by the deadline (putting those creative thinking skills to the test), coming up with (maybe unrealistic) solutions (there's that creativity), or using humor, empathy, or other "soft skills" in their presentation. In other words, there's a lot more than just the ordinary possible here.

BREAK INTO GROUPS

Now that you have a theme and have set up your goals, break your students into groups. Try 2-3 students at the most. Make sure that there is something each person can own, like designing graphics, writing content, researching, or presenting.

Also, make sure that students are clear on what their assignment is and what you're looking for in their presentations. The experience is more about how they get to a solution together, which means everyone contributes.

SMART NOTEBOOK FEATURES FIFTH GRADE MATH AND SCIENCE CONCEPTS
Teacher Hackathon — Camelot Elementary, San Antonio, Texas

START DESIGNING AND SOLVING

This is where your students design a solution to the assignment. Depending on what you've asked them to do, they might need to interview experts, investigate a location, use the internet for research, and gather facts (all the 4C's are at work here). They'll need to brainstorm their ideas, listen to each other, and come to a consensus on how to draw it, build it, and present it. In the end, each student should be able to detail how they contributed to the project.

Watch those 4C's radiate! As the teacher, you're seeing firsthand how your students are solving problems, working together, using their creativity, and communicating with each other. It's happening all at once.

PRESENTING SOLUTIONS

Now it's time for the groups to present their solution. Let it be up to them how they'll do it – again, based on the real-world goals you've established from the outset.

Maybe it's a rap battle. A play. A poster session. A slideshow. It could be done through a show and tell, an interactive game, or a video. Creativity is the name of the game as this is the time for them to highlight their special talents.

Offer them access to tools like SMART Notebook, PowerPoint or Prezzi to organize and share their presentations. With SMART lab, they can create their own games in Shout It Out, Speed Up, Label Reveal and more to involve the class in learning about different pieces.

HELPFUL TIP: Confidence is a big factor in the believability of a presentation. Provide opportunities for students to practice their presentation before giving it in front of the entire class.

JUDGING

You could forgo judging so that everyone gets a ribbon and applause. Or, you can be creative with the judging and find ways to blend in the goals of the event.

These are just a few ideas for catagories:

- Silliest Idea Anyone Has Ever Heard
- Incredibly Inventive (or Imaginative)
- Amazingly Pragmatic
- Awesomely Presented
- The “I Never Thought of It That Way” Award

But we bet your students have some really great ideas of their own Ask them to create some categories, too. Increase their engagement and fun with Shout It Out in SMART lab so everyone can see each other’s ideas and have a voice.

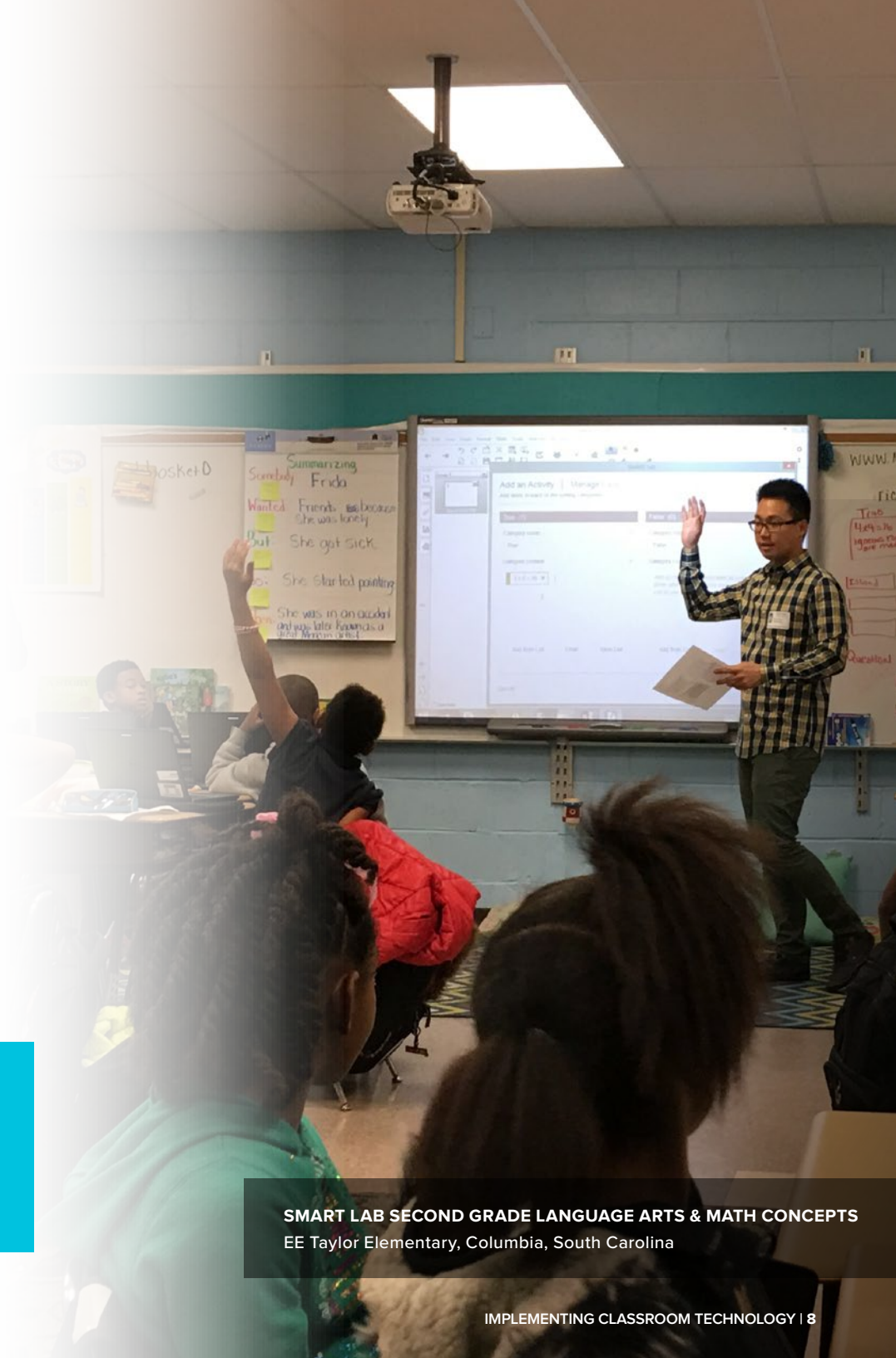
If you’re opening up voting to the class, use simple feedback tools like SMART response 2 to let students vote in different categories or pick an audience favorite.

REWARDS

Make it easy on yourself and financially simple. A certificate printed on the school printer is just as great as a fancy trophy.

That’s it! You’ve done it.

REMEMBER: You can design your hackathon in a thousand and one different ways. Unleash your own creativity and have fun with your students. Want to take that simple hackathon and expand on it? Read on.



SMART LAB SECOND GRADE LANGUAGE ARTS & MATH CONCEPTS
EE Taylor Elementary, Columbia, South Carolina

PUT IT INTO PRACTICE

Say you're working on a unit for the Solar System. Here's how you can add a hackathon into it:

ASSIGNMENT (PICK ONE):

- How could we survive on another planet?
- How could we travel faster to Pluto?
- How could we design a better space ship?
- Is there a different kind of satellite that could predict earthquakes?
- Can we build a livable space station on the moon?

GROUPS: 2-3 students

TIMELINE: 1 day (Hour 1: Introductions/Explanations – Hour 2: Get Assignment and Team Up – Hour 3: Work Together and Design Solutions – Hour 4: Presentations – Hour 5: Judging and Rewards)

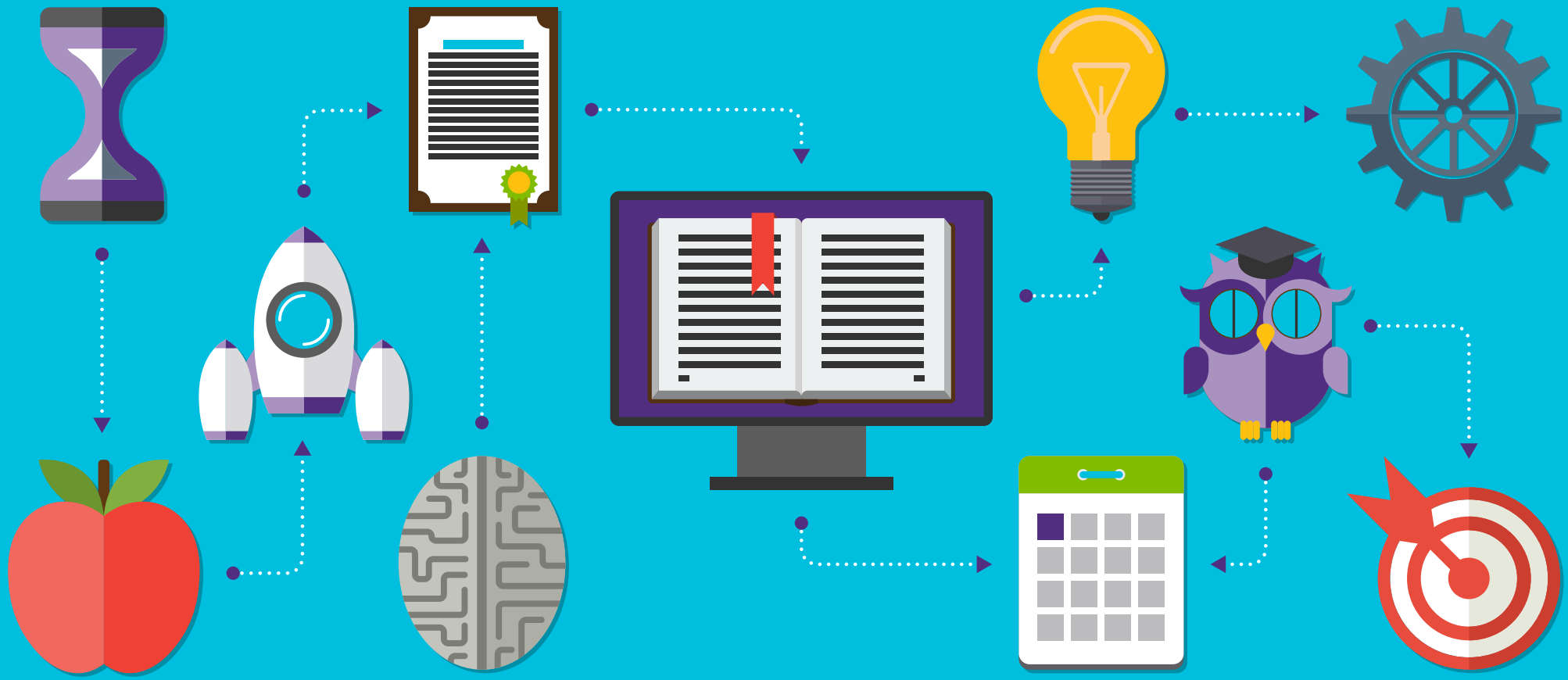
PRESENTATIONS: Students present their solutions in SMART Notebook, Prezi, or PowerPoint. They use posters, puzzles, or other supplies to show their solutions.

JUDGING: Keep it simple and ask your class to be the judge. Give them established criteria so they can decide winners for categories like "most realistic," "most imaginative," and "silliest solution."

REWARD: Present certificates to all teams.

TIPS FOR STUDENTS

- Recommend that students work on something they're passionate about. Pick it and go for it.
- Saying "That's a great idea!" goes a long way towards improving participation and reducing anxiety.
- Ask them to look for the positive in each other's ideas. It can be too easy to pick on an idea before it's really "baked." Each idea needs its own breathing room. Plus, too much negativity shuts down creativity.
- The best rule of thumb? Criticize the idea, not the person.
- Attribute where ideas came from. It makes every person in the group feel valued.
- Remind them to ask questions as they go along to keep everyone on track.
- Have them plan and practice presentations with a timer. Bonus points if they find an audience to provide feedback before the real deal.



CREATING STUDENT SUCCESS

Hackathons should be fun. But for some students, the event might be stress-inducing. It's normal for some students to feel overwhelmed during a hackathon, so be on the lookout for any strong emotional responses as they have a big impact on the ability to thinking critically. Disengagement and off-topic behavior can also be indicators of coordination and cooperation challenges among the team.

WHAT YOU CAN DO: Take the "temperature" of the group by asking everyone how things are going. If there's discord or disagreement that's preventing them from working together, ask them what they think they need to do to solve it. Unless things are intolerable, keep the group intact. Conflict resolution is another real-world skill to learn through this experience.

3. LEVEL UP YOUR HACKATHON

KINDERGARTEN OBSERVATION
Harbor Creek Elementary, Erie, Pennsylvania

LEVEL UP YOUR HACKATHON

Now that you've got the basic framework down, expand on the possibilities! Remember, you can make your hackathon as simple or as complex as you like – but your assignment and goals stay pretty much the same no matter how grand you design it.

BREAK INTO GROUPS

Expand to involve several other teachers in your school. After all, collaboration is the name of the game – not just for your students, but for you too.

Give one of these a try:

- The more the merrier: Pick two or three other classes to join in. Or make it a school-wide event. Bringing in other units can be a good way to make your assignment more complex.
- Reach up (or down): Invite the participation of another class in the same grade level or students from lower or higher levels.
- Go big: Involve schools in your district, around the country, in the next town, or around the world.
- How, you ask? Simple. SMART amp makes collaboration a snap. And other tools like Google Hangouts and Skype can make it easy for your students to collaborate with others.

TEACHER CODING HACKATHON
Harbor Creek Elementary, Erie, Pennsylvania

SMART LAB CODING WITH STUDENTS
Harbor Creek Elementary, Erie, Pennsylvania

START DESIGNING AND SOLVING

There are a lot of ways to add extra dimensions to the hackathon with technology. Here are just a few ideas:

For brainstorming, turn your students loose on Concept Mapping in SMART Notebook. They'll be able to capture ideas by typing, writing, or adding photos right into a SMART Notebook page. With everything in one place, they'll be able to see how one idea leads to another.

For collaborating, tools like SMART amp are another good way to involve students of all abilities to participate using their own devices. You can download and create workspaces, hand out copies to your student groups, as well as work together as a class in the same workspace. All group members can see the contributions as they go. Even students in other schools can contribute to a workspace in SMART amp.

For communicating, if you invite other schools into the project, old-fashioned email and other tools like Skype and Google Hangouts can come in handy, especially as students work with others across time zones. Talk about a future ready experience! It'll help students discuss ideas and give feedback as they're designing and planning.

For building, if students are trying bring real-life objects into their digital presentation files, recommend the use of the cameras on their smartphones, or use document cameras and scanners to make workspaces and presentation files come to life.

For presenting, students can use a unified workspace to collect and gather all their research, notes, photos, videos, games. With a tool like SMART Notebook, they'll be able to build a unique, interactive presentation that puts all sorts of content together seamlessly.

KINDERGARTEN OBSERVATION
Harbor Creek Elementary, Erie, Pennsylvania

PRESENTING SOLUTIONS

Really, the sky's the limit. Here are just a few things you can do:

GET FEEDBACK

Feedback helps students learn how others interpreted their key message, enhancing their critical thinking skills. Plus, they'll feel pride when they hear what they did well, and know what to strive for when they learn what they could do better.

Sample questions for teams:

- What did they do well?
- How could they improve?

Sample questions for the class about the presentation:

- What did you determine was the key message of the presentation?
- What one message do you remember from the presentation? Why?
- What did the presenters do well?

OPEN UP THE EVENT

- Invite other classes, members of the faculty, the district, and/or parents to come to the presentation.
- Invite your community to come see your students in action. What a great way to show the community how your school is building social and emotional learning skills!

JUDGING

- Reach out beyond your class for judges. Include other teachers, the superintendent, the secretary, the school nurse, or the janitor. Consider what insight might these other perspectives give to your students.
- Bring members of the community and industry experts in to be judges. For instance, consider asking the executive director of an environmental nonprofit to judge how to solve pollution in a creek.

REWARDS & PRIZES

- Create categories like “Best Presentation” or “Most Imaginative Solution.” Get creative. Ask your students what they think the categories should be, too.
- Go beyond the participation certificate and provide prizes like ribbons and trophies.
- Attract sponsors by asking them to donate gift cards or prizes for the winners.

KINDERGARTEN OBSERVATION
Harbor Creek Elementary, Erie, Pennsylvania

INVOLVE YOUR COMMUNITY

Bringing in members of your community is a great way to show your students other ways to collaborate. Plus, showcasing your students to others in the school, district, and town or city will give them a sense of authority, respect, and dignity.

Build a committee. Any hackathon has more than a few moving parts. Get other teachers, staff, parents, or community leaders on board. Plan to get commitments from volunteers in place four months prior.

Get sponsors. Local businesses love to support innovative ideas and kids in their community. Don't be shy about asking for sponsors to help defray costs, attract publicity, and provide prizes.

Ask for promotional help. Ask other teachers, or parents, to write press releases, engage their social media networks, and do what they can to get the word out.

ADD A BUDGET

Don't forget about food and refreshments for the students and attendees, plus what you will need for materials: posters, paint, power strips, and more! Ask local businesses or your principal if they can allocate a few dollars your way.

ADD A VENUE TO YOUR HACKATHON

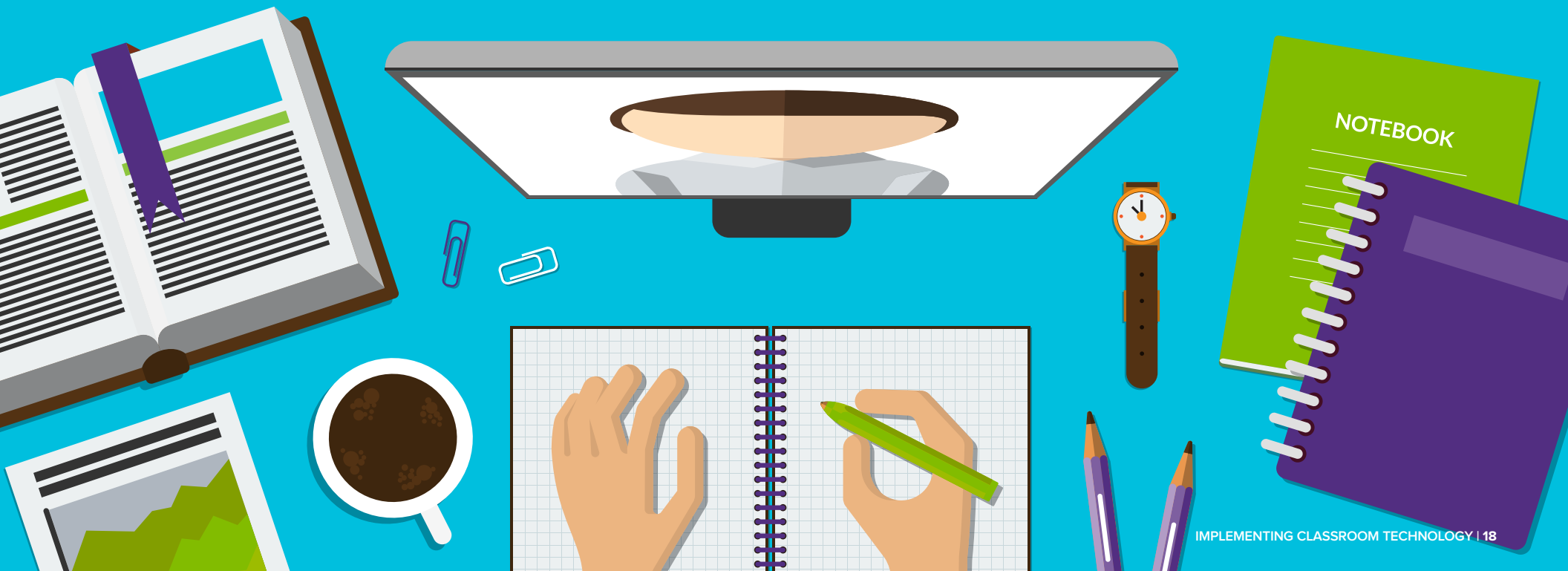
If you're looking to assemble a bigger audience, be sure to get a space big enough to host your guests. The school has a huge gymnasium and it's free! But maybe you don't have a big enough space or you want it to feel more special? If so, you may need to book your location four to six months prior to your event.

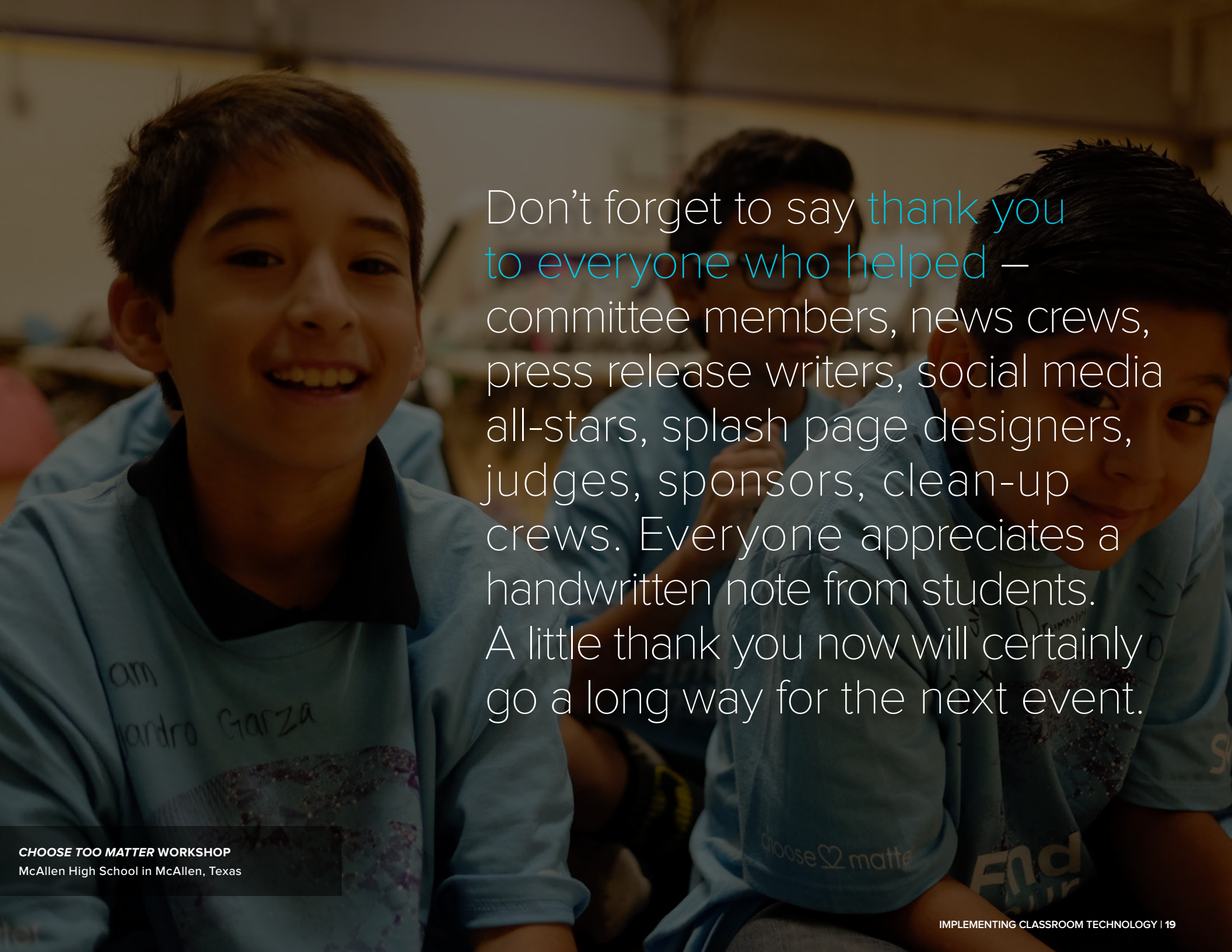
NOTE: if you're seeking sponsors, space donation is a great write-off!

ADD PUBLICITY TO GET THE WORD OUT

Create flyer to send home with the students or take to community events. Serious promotion should begin 60 days out. Get a plug on local news or in the newspaper prior to the event.

REMEMBER: You don't need to add or expand on all of these extra components to your hackathon. Try one or two and see how it goes. The best rule of thumb is to remove complexity for the sake of ensuring your students have fun with the project. In other words: keep it simple (whatever that means to you).





Don't forget to say thank you to everyone who helped — committee members, news crews, press release writers, social media all-stars, splash page designers, judges, sponsors, clean-up crews. Everyone appreciates a handwritten note from students. A little thank you now will certainly go a long way for the next event.

***CHOOSE TOO MATTER* WORKSHOP**
McAllen High School in McAllen, Texas

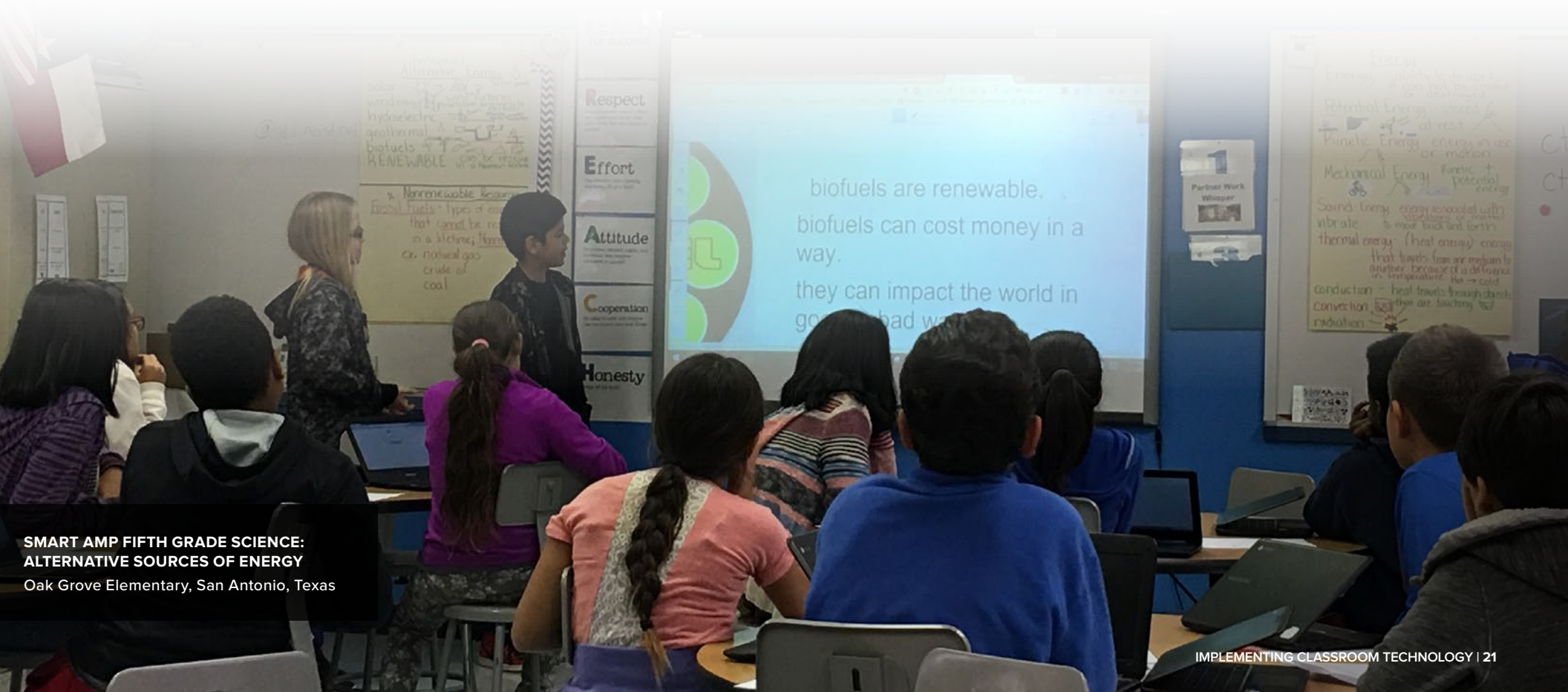
4. FLEXING THOSE 4C'S

FLEXING THOSE 4C'S

During the hackathon, your students developed important skills that helped them in their future. For instance:

- As they discussed and brainstormed ideas, they learned to speak honestly, listen to others, have open dialogue, and receive feedback (4C's at work: creativity, communication, critical thinking).
- When they worked together, they cooperated by setting mutual goals, negotiating, and sharing accountability and responsibility with one another. What's more, they coordinated with each other on getting things done – when and by whom (4C's at work: creativity, collaboration, communication, critical thinking).
- At the end of the hackathon, they had hurdles and obstacles to overcome – personally and/or within their teams. They were exposed to new and different ideas and opinions that they had to value and respect. Most likely experienced some conflict with each other that they've had to peacefully and respectfully resolve (4C's at work: collaboration, communication, critical thinking).
- Your students had a chance to be listened to, to become experts, and to have a sense of authority. They received compliments and constructive feedback that they'll be able to take with them. Above all, they could connect with each other, a community, and to the larger world around them (4C's at work: collaboration, creativity, communication, critical thinking).

Powerful, right?



SMART AMP FIFTH GRADE SCIENCE: ALTERNATIVE SOURCES OF ENERGY
Oak Grove Elementary, San Antonio, Texas

5. ABOUT SMART

SMART Technologies Inc. is a world leader in simple and intuitive solutions that enable more natural collaboration. We are an innovator in interactive touch technologies and software that inspire collaboration around the globe.

Over 2.8 million K-12 classrooms in 175 countries around the world use SMART solutions for education to make learning more interactive, engaging, effective and fun.

To learn more, visit smarttech.com.

If you found this information useful, pass it on to other educators who might, too.

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